



Study of School Readiness and its Effective Leadership in Light of Developed Curricula in Lebanon

Final Report

Center for Educational Research
and Development

With the Collaboration of

En partenariat
avec
RÉPUBLIQUE
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Ministère
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School Readiness and Its Effective Leadership in Light of the Developed Curricula in Lebanon

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Abbreviations & Acronyms

CE	Community Engagement
CERD	Center for Educational Research and Development
CP	Community Partnership
CPD	Continuous Professional Development
DG	Director General
DGE	Directorates for General Education
D-RASATI	Developing Rehabilitation Assistance to Schools and Teacher Improvement
D-RASATI 1	First phase of the D-RASATI program
D-RASATI 2	Second phase of the D-RASATI program
EDP	Educational Development Program
EDP II	The Second Educational Development Project
ESS	Effective School Standards
EU	European Union
FED	Faculty of Education
GDE	General Directorate of Education
ICT	Information and Communication Technology
KPIs	Key Performance Indicators
LDP	Leadership Development Program
LU	Lebanese University
M&E	Monitoring and Evaluation
MEHE	Ministry of Education and Higher Education
MOU	Memorandum of Understanding
NGO	Non-government Organization
OECD	Organization for Economic Cooperation and Development
PITB	Pre-service and In-service Training Bureau
PPP	Public-Private Partnership
PR	Public Relations
REOs	Regional Education Offices
SIP	School Improvement Program
SLDP	School Leadership Development Program
SSA	School Self-Assessment
TC	Training Centers (Ecole Normale in French)
TOT	Training of Trainers
UN	United Nations
UNESCO	United Nations Educational, Scientific & Cultural Organization
UNICEF	UNITED NATIONS International Children's Emergency Fund
USAID	the United States Agency for International Development
USAID/L	USAID/Lebanon
WB/WBG	World Bank/World Bank Group

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EXECUTIVE SUMMARY

Overview

This comprehensive study evaluates Lebanon's educational sectors—public, private free, private non-free, and UNRWA schools—focusing on demographic trends, human resources, technological readiness, resource allocation, infrastructure, communication dynamics, and leadership. The objective is to assess the readiness of schools—both in terms of human and material resources—across various sectors for implementing the developed curricula. The research adopts a mixed-methods approach, combining quantitative data analysis from surveys with qualitative insights from interviews and focus groups. Key performance indicators, such as resource distribution, staff qualifications, and stakeholder engagement, were used to identify gaps and inform recommendations.

This allowed identifying disparities, challenges, and actionable recommendations for a more equitable and effective educational framework.

Key Findings

1. Demographic and Human Resource Analysis

Age and Gender Disparities:

- The study revealed that the majority of principals across Lebanon fell within the 50–60 years age group (37.3%), followed by the 40–50 years age group (36.2%), with notable variations across sectors and regions; the public sector was dominated by principals aged 40–50 years (48.3%) and 50–60 years (43.5%), with no younger leaders, while private schools exhibited a broader age distribution, including both younger and older leaders.
- The study revealed a clear predominance of female representation across educational roles, with females constituting the majority among principals, supervisors, coordinators, and teachers in most sectors and governorates, particularly in the public and private free sectors, while the private non-free sector and certain regions, such as the Beqaa and Baalbek-Hermel governorates, exhibited relatively more balanced gender distributions.

Educational and Employment Qualifications:

- Advanced degrees are most prevalent in private non-free schools, whereas public schools rely heavily on bachelor's degree holders.
- Approximately 40% of public-school principals serve in acting roles, often without formal administrative training.
- Over 70% of public-school teachers are contracted, many of whom lack structured pedagogical preparation.

Experience Levels:

- Public sector principals have extensive teaching experience (25+ years) but limited administrative exposure (0–10 years).
- Private schools display a diverse spectrum of experience levels, including a mix of early-career and veteran educators.

2. Technological Readiness

Teacher Proficiency:

- Significant gaps in technological skills exist among public school teachers, particularly in peripheral regions such as Akkar, North Lebanon, and Baalbek-Hermel.
- Private non-free schools demonstrate higher levels of digital proficiency, especially in urban centers like Beirut and Mount Lebanon.

Infrastructure and Technical Support:

- Public schools face severe shortages in digital tools and infrastructure, with 51.7% of administrators rating their technical support systems as "Completely Unsuitable."
- Private schools, particularly non-free institutions, are better equipped but face challenges in extending these resources to rural areas.

3. Resource Allocation

Laboratories and Libraries:

- Public schools experience acute shortages, with up to 60% of schools in Akkar lacking laboratories.
- Libraries are under-resourced in public schools, while private non-free schools demonstrate better outcomes (e.g., 38.9% well-equipped in Mount Lebanon suburbs).

Playgrounds and Accessibility:

- Many schools lack appropriate playgrounds, with 50% of Beirut schools requiring significant repairs.
- Accessibility for special needs students remains a critical issue across sectors, with unsuitable ramps and toilets reported in most schools.

4. Regional Disparities

- Urban: Beirut and Mount Lebanon lead in readiness, with better staffing, infrastructure, and technological resources.
- Rural Regions: Akkar, North Lebanon, and Baalbek-Hermel face acute shortages in essential roles, infrastructure, and technology.

5. Communication Dynamics

Administration-Teacher Communication:

- Public schools report moderate effectiveness, with strengths in Mount Lebanon and the South but challenges in Akkar and Baalbek-Hermel.
- Private free schools exhibit consistently strong communication, particularly in the Bekaa and South.

Parent-Teacher Engagement:

- Engagement levels vary, with higher effectiveness in urban areas and weaker participation in rural regions.

6. Leadership and Strategic Planning

- Participatory leadership models are prevalent in 90.5% of public schools and 84.7% of private non-free schools.
- Strategic planning and innovation support are strongest in private non-free and UNRWA schools but remain inadequate in public schools in underserved areas like Akkar and Bekaa.

Recommendations

1. Leadership and Capacity Building

- Provide formal training programs for acting principals and contracted teachers, emphasizing administrative skills, curriculum leadership, and pedagogical development.
- Introduce mentorship and peer-learning opportunities to enhance leadership capabilities in underserved regions.

2. Addressing Resource Shortages

- Allocate targeted funding to address critical shortages in counselors, psychologists, and specialized staff in public schools.
- Prioritize the development of laboratories, libraries, and playgrounds in rural and peripheral regions.
- Develop partnerships with private stakeholders to improve resource distribution, particularly in underserved public schools.

3. Enhancing Technological Integration

- Expand teacher training programs in digital tools, AI, and modern applications, with a focus on peripheral regions like Akkar and Baalbek-Hermel.
- Invest in internet connectivity, digital devices, and maintenance support in public schools.

4. Improving Communication and Stakeholder Engagement

- Strengthen school-community relationships by fostering participatory leadership and regular parent-teacher communications.
- Implement standardized feedback mechanisms using digital platforms to improve administrative efficiency and teacher development.

5. Equity and Inclusivity Initiatives

- Ensure equitable resource distribution across public and private sectors by establishing minimum standards for infrastructure, staffing, and technology.
- Upgrade facilities to improve accessibility for students with special needs, including ramps, elevators, and specialized toilets.

6. Monitoring and Evaluation

- Develop comprehensive evaluation frameworks using performance indicators, classroom visits, and surveys to monitor progress and ensure accountability.
- Establish dynamic feedback loops to refine strategies based on real-time data and stakeholder input.

Conclusion

The findings of this study highlight systemic disparities and resource inequities across Lebanon's educational sectors, exacerbated by regional and sectoral differences. By addressing these challenges through targeted investments, leadership training, technological integration, and stakeholder engagement, policymakers can create an inclusive and resilient education system that prepares students for the demands of a rapidly evolving global workforce. The recommendations outlined here offer actionable pathways for achieving sustainable educational reform, fostering equity, and enhancing the quality of education nationwide.

CHAPTER ONE

INTRODUCTION AND BACKGROUND

Introduction

In light of the increasing challenges facing the educational system in Lebanon, effective school leadership is one of the main pillars of school success. This success is crucial for improving the quality of education, achieving educational reform goals, and enhancing learners' competencies. Numerous international studies have confirmed the importance of school leadership in improving students' outcomes and school development (Leithwood et al., 2020; Day et al., 2016).

With the launch of the curricula development workshop in pre-university general education, the urgent need has emerged prioritizing the qualification of school principals who are fully prepared and capable of adopting and efficiently implementing transformative changes. The school leader serves as a pivotal intermediary between strategic educational initiatives and their operational implementation, orchestrating the effective translation of curricular frameworks into tangible pedagogical practices within the educational institution. Such leaders play the role of mediators who motivates-teachers, guide learners, and build communications with the community and parents. This was confirmed by the study of (Hallinger & Heck, 2010) which indicated that school leadership indirectly, yet significantly, affects learners' achievement through its influence on school culture and educational practices.

Implementing developed curricula requires school principals who not only possess a theoretical understanding of these curricula, but also leadership competencies that enable them to manage the change process, motivate educational teams, foster a supportive and innovative educational environment, and effectively manage human and material resources. Fullan (2014) indicated that effective educational leaders are those who can lead change and build capacities within their schools. Moreover, enabling school principals to lead educational change requires equipping them with the skills necessary for analyzing data and making evidence-based decisions. Schildkamp et al. (2019) emphasized the importance of using data in educational decision-making to improve educational practices.

In this context, the role of continuous professional development for school principals emerges as a crucial element in the success of implementing new curricula. A study by Darling-Hammond et al. (2007) revealed that effective school leadership development programs are characterized by their contextual relevance, focus on solving real-world problems, and providing opportunities for collaborative learning.

Given the specific challenges facing the educational system in Lebanon, it is necessary to adapt the best international practices in school leadership to the local context. A study by Akkary (2014) indicated the importance of taking into account the cultural and social context when developing school leadership programs in the Middle East.

Therefore, the success of implementing developed curricula in Lebanon primarily depends on the effectiveness of school leadership in directing this process. It also relies on the extent of schools' readiness both in terms of human and material resources, to keep pace with the designed curricula while implementing them efficiently. Hence, enhancing the capabilities of school leaders and providing the necessary support to ensure school readiness should be at the top priorities of a comprehensive educational reform aimed at addressing modern challenges and achieving the desired quality of education.

Study Overview

This study provides a comprehensive vision of school readiness¹ in Lebanon and aims to lead the change process. Its goal is to ensure the successful implementation of developed curricula while contributing to achieving quality in education.

Problem Statement

The process of developing curricula in Lebanon represents a major challenge to the educational system and requires urgent, comprehensive management. Since the adoption of the current curricula in 1997, there has been no fundamental review to align them with the rapid global scientific and educational developments (Shuayb, 2016). This stagnation has led to a significant gap between what students learn and what the labor market and contemporary life require in terms of skills and competencies. The distance learning crisis imposed by the Covid-19 pandemic has revealed major weaknesses in the Lebanese educational system and highlighted the urgent need for a comprehensive update of the curricula (Hammoud, 2021). This update is not limited only to the content of the subjects, but also extends to teaching methods, assessment techniques, and the integration of modern technology.

In 2022, the Lebanese National Curriculum Framework for General Education at the Pre-University level was launched, representing a significant step towards educational reform

¹ Readiness relates to human and material resources solely, and includes:

- **Human Resources:**

Number of staff members: The extent to which the number of teachers and administrative staff is sufficient to meet the needs of the effective implementation of the developed curricula and ensuring that there is no shortage of staff that could hinder implementation.

- **Material Resources:**

School equipment: The availability of equipped classrooms and appropriate educational facilities that support activities related to the developed curricula, such as laboratories, libraries, and computer rooms.

Technology and Educational Tools: The availability of electronic devices such as computers, interactive boards, and Internet connection which are essential for supporting modern education and the effective implementation of curricula.

(Ministry of Education and Higher Education, 2022). However, the success of the framework largely depends on the readiness of public and private schools to adopt and implement these changes effectively. As a result, the significance of school principals in guiding the change process and creating a conducive environment for the successful implementation of new curricula becomes evident. (Karami-Akkary et al., 2019).

However, this curricular reform faces multiple systemic challenges:

- 1) **Infrastructure and Resource Constraints**
Public institutions demonstrate significant deficiencies in facilities and equipment necessary for contemporary pedagogical methodologies (El-Ghali et al., 2019).
- 2) **Professional Development Requirements**
The current situation necessitates comprehensive pedagogical training programs (Shuayb & Brun, 2020).
- 3) **Leadership Development**
Administrative capacity building is essential for effective change management (Hallinger & Heck, 2010).
- 4) **Institutional Cultural Transformation**
Successful implementation requires fundamental shifts in organizational culture toward innovation adoption (Fullan, 2014).
- 5) **Community Engagement**
Enhanced school-community partnerships are fundamental to implementation success (Akar, 2016).

Given these challenges, there is an urgent need for an in-depth study aimed at evaluating the readiness of public and private schools in Lebanon to implement the developed curricula, with a particular focus on the role of school leadership in this process. Accordingly, the core research problem centers around the following primary question: ***What factors influence the readiness of institutions for curricular implementation in both public and private educational sectors in Lebanon, and how does leadership within these institutions enhance this readiness?***

Research Questions

- 1) ***How do preparedness levels for curricular implementation differ between public and private educational institutions?***
This question entails a comparative analysis focusing on the strengths, weaknesses, opportunities, and challenges faced by each institutional type.
- 2) ***What distinctive leadership competencies are associated with effective curricular implementation across different types of educational institutions?***
This question will explore variations in leadership capacity and their effects on successful implementation.

3) What human capital and material resource factors impact implementation readiness across various types of educational institutions?

The analysis will assess patterns of resource availability and utilization.

4) *How does engagement with parents and the community differ between public and private institutions, and how does this support curricular implementation?*

This involves examining how stakeholder engagement varies and its impact on implementation success.

5) *What are stakeholders' expectations regarding the outcomes of curricular implementation in different types of educational institutions?*

This question will compare expectations of implementation success across various institutional contexts.

6) *What are the essential prerequisites for successful curricular implementation as perceived by educational stakeholders?*

This will identify the necessary human capital and material resources as seen by leaders and other stakeholders in the educational sector.

Research Objectives

This study aims to evaluate the comprehensive readiness of schools in terms of infrastructure, human capital, material resources, technical capacity, and pedagogical capabilities, while analyzing the correlation between institutional leadership and organizational preparedness for the curricular transition. It seeks to identify the challenges and opportunities associated with implementing the developed curricula, providing a detailed analysis of barriers and potential facilitative factors. Ultimately, the study aspires to propose evidence-based strategies to enhance institutional preparedness through effective leadership practices, ensuring a successful and sustainable curricular implementation.

- 1) **Evaluating School Readiness:** Assess the level of readiness among public and private schools to implement the developed curricula, focusing on infrastructure, human resources, material resources, technical support, and educational resources.
- 2) **Analyzing the Role of School Leadership:** Study how school leadership affects school preparation and facilitates the transition to the developed curricula.
- 3) **Exploring Challenges and Opportunities:** Identify the challenges that schools encounter during the implementation of the developed curricula, as well as the opportunities that can be leveraged to ensure successful and effective implementation.
- 4) **Providing Practical Recommendations:** Propose effective school leadership strategies that improve school readiness to implement the developed curricula effectively and sustainably.

Importance of the Study

This study underscores the critical role of school readiness and leadership in the successful implementation of newly developed curricula in Lebanon, aiming to drive significant educational transformation.

The importance of this study is highlighted through assessing the readiness of schools and their principals to implement the developed curricula in Lebanon by emphasizing effective school leadership as a decisive factor in achieving the desired educational transformation. The importance of the study lies in the following aspects:

1) **Evaluating Readiness for Change**

The study systematically assesses schools' readiness to implement the developed curricula by examining their infrastructure, human resources, and technical equipment, thereby identifying gaps and directing efforts to enhance overall readiness.

2) **Strengthening School Leadership**

The study highlights the vital role of school leaders in facilitating and managing the transformation process, thereby increasing the chances of successful curriculum implementation.

3) **Supporting Educational Reform Efforts**

This study aligns with national efforts to reform the school educational sector in Lebanon. It identifies the key factors influencing the successful implementation of the developed curricula, contributing to formulating recommendations that support sustainable development and high-quality educational outcomes.

4) **Supporting Educational Policies**

This study aids decision-makers at the Ministry of Education and Higher Education, particularly within the General Directorate of Education and the Center for Educational Research and Development, by identifying challenges and opportunities for curriculum implementation and offering grounded recommendations based on comprehensive field assessments.

Overall, this study offers a comprehensive framework for understanding and enhancing the interplay between school readiness and leadership, thereby increasing the success rate of curriculum implementation and contributing to the improvement of educational quality in Lebanon.

Methodology of the Study

1. Study Type and Design

Research Methodology. The study adopted both descriptive and comparative approaches, and the research methodology utilized is a mixed methods approach which combines quantitative and qualitative methods in order to provide a comprehensive understanding of the issues raised. This approach is particularly effective for exploring complex educational contexts as it paves the way for the triangulation of data and enhances the validity of the results (Sammons & Davis, 2017).

Research Type. The adopted type for this study is applied research as it addresses specific educational challenges within the Lebanese context. It seeks to find practical solutions to improve school readiness and leadership efficiency in implementing developed curricula in Lebanon (Mejeh et al., 2023).

Research Design. The research adopted a cross-sectional design allowing data to be collected at a single point in time and from multiple participants. This design is suitable for assessing current conditions related to school readiness and leadership competencies (Camerino et al., 2012).

2. Data Collection Tools

- **Questionnaires.** Four questionnaires were developed and distributed to school principals, supervisors, coordinators, and teachers to assess the level of school readiness, leadership competencies, and factors influencing the implementation of the developed curricula.
- **Interviews.** In-depth interviews were conducted with a sample of general directors, directors of directorates, and experts in the educational field in order to understand the challenges and opportunities related to the implementation of the developed curricula.
- **Focus Group.** Several focus groups were conducted with samples of learners to gather their perspectives on the future of schools.

3. Document Analysis

Official documents, reports, and policies related to the developed curricula, school leadership, and effective schools were studied.

- **Official Documents**
Documents related to the developed curricula.
Official reports on education in Lebanon.
- **Educational Statistics**
Data on the number of schools, learners and teachers.
- **Previous Studies**
Academic research on the application of curricula in Lebanon or similar countries.

Studies on school leadership and its impact on the quality of education.

Reference Frameworks

The Ministry of Education and Higher Education and the Center for Educational Research and Development have collaboratively developed several key reference frameworks that are instrumental in advancing the quality of pre-university academic education in Lebanon. These frameworks serve as foundational tools for educational stakeholders at all levels and include:

- **The Reference Framework for School Principal's Competencies**
- The Reference Framework for Academic Accreditation: The Updated Standards of Effective School
- **The Reference Framework for Community Partnerships, etc.**

International Organizations' Reports

- UNESCO and World Bank reports on education and school leadership in Lebanon.
- Comparative studies of educational systems in the region.

Records of teacher training, school principals and administrators in schools:

- Data on professional development programs provided to teachers, school principals and administrators in schools.
- Records of participation in workshops and training courses.

4. Study Sample

In the study, a stratified random sampling method is employed to select a representative sample of 338 schools, encompassing both public and private institutions across various regions in Lebanon. This approach ensures that each region and type of school is proportionally represented, providing a comprehensive overview of the educational landscape. Participants in the study are school principals, teachers, educational administrators, supervisors, coordinators, learners, and decision makers as well as key stakeholders.

5. Data Analysis

- Quantitative data was analyzed using descriptive and analytical statistics to understand the levels of readiness and leadership competencies.
- Qualitative data was analyzed using thematic analysis to identify common themes and insights on leadership practices and challenges.

6. Research Ethics

The necessary approvals were obtained from the relevant authorities. It is worthwhile mentioning that the participants' privacy as well as data confidentiality was respected.

CHAPTER TWO

THEORETICAL FRAMEWORK OF THE STUDY

School Readiness in the Global Context

Contextual Analysis. The Lebanese educational system faces substantial systemic challenges requiring comprehensive reform initiatives. World Bank Human Capital Index (2020) data indicate significant disparities between actual and potential educational outcomes, with students achieving learning equivalency of six years despite ten years of institutional attendance. UNICEF (2021) documentation reveals critical resource deficiencies in public institutions, creating pronounced quality differentials between public and private sectors. Additionally, professional advocacy faces constraints due to political complexity (Shuayb, 2018).

These challenges necessitate strategic policy interventions for resource allocation optimization and infrastructure enhancement (Ministry of Education and Higher Education, 2021). Leadership development emerges as a critical long-term investment for educational quality enhancement and sustainable development goal achievement (UNESCO, 2019).

Comparative Analysis of International Curriculum Development. Setting educational objectives may appear straightforward, but it often involves debate and has broad implications for the structuring, funding, and operation of educational systems. John Dewey's 1902 philosophical framework articulates the fundamental tension between academic and humanitarian educational objectives:

"One school has focused its attention on the importance of curriculum content compared to the child's experiences. The other school starts with the child as the point of departure, center, and end. His development is the ideal. Not knowledge, but self-realization is the goal."

In addition to academic and humanitarian aims, Contemporary educational objectives also encompass:

- Economic Development: Workforce skill enhancement
- Social Cohesion: National identity formation and democratic value promotion
- Cultural Enhancement: Religious, secular, artistic, and community engagement.

Achieving these diverse and intersecting goals requires a careful balance between individual and societal needs. Below are examples of international curriculum development efforts:

Thailand: Leadership and Implementation Challenges. A review by Hallinger & Bryant (2013) on Thai educational reforms highlighted the critical role of school leadership in successful change initiatives. Findings revealed deficiencies in professional development and weak integration of reform efforts.

Ireland: Holistic Learner Development. Ireland revamped its national curriculum for primary schools, transitioning from a prescriptive model to a flexible framework focused on

learning outcomes ([See appendix 1 for more details](#)). Stakeholders, including educators, parents, and educational professionals, were engaged in the process (Kenny et al., 2020). The reforms emphasized continuous professional development to support curriculum implementation (Walsh, 2023).

Singapore: School Autonomy. Singapore introduced reforms to enhance school autonomy and improve education quality ([See appendix 2 for more details](#)). These included multiple learning pathways tailored to students' abilities and interests and strategies for fostering critical thinking and creativity (Tan et al., 2021). Challenges remain, such as a parallel education system driven by competitive parental expectations, which exacerbates socio-economic disparities (Kwek & Wong, 2023). Despite these positive developments, Singapore's education system still faces significant challenges, most notably the existence of a parallel education system that emphasizes narrow academic achievement, driven by parental expectations and intense competition. This is evident in the widespread prevalence of private tutoring and supplementary educational programs, which may exacerbate social and economic inequalities in education.

New Delhi: The Happiness Curriculum. Launched in 2018, this initiative aimed to enhance mindfulness, critical thinking, reflection, and socio-emotional skills in students ([See appendix 3 for more details](#)). Despite its success, challenges such as teacher resistance and balancing academic and well-being goals persisted (Care et al., 2020; Sisodia, 2020).

Southern China: Perspectives on Effective Leadership and Change. Research in southern China underscores the importance of adapting global practices to local contexts and fostering leadership competencies to navigate complex educational reforms. (Tang et al., 2014).

United States Educational Reform Context. Research in the United States emphasizes institutional autonomy enhancement and minority educational access optimization (Honig & Rainey, 2012; Datnow et al., 2005), highlighting the significance of localized decision-making processes.

International Baccalaureate Framework. The International Baccalaureate (IB) represents a comprehensive pedagogical model integrating global perspectives with contextual learning ([See appendix 4 for more details](#)). The framework emphasizes inquiry-based methodologies and critical thinking development while maintaining contextual adaptability and rigorous standards (International Baccalaureate, 2021). The model prioritizes continuous professional development and community engagement within a framework of lifelong learning and systematic assessment.

Synthesis of International Implementation Patterns. Cross-national analyses reveal consistent themes: leadership centrality, professional development significance, holistic development approaches, and contextual-cultural adaptation requirements. These patterns underscore the necessity for context-specific implementation research and cultural adaptation methodologies.

Curriculum Development Components

To enable Lebanon to build a high-quality education system, the following foundational components must be established:

Quality Standards and Educational Systems Framework. Educational quality standards constitute fundamental metrics for systemic evaluation (Fullan & Quinn, 2015). These encompass pedagogical excellence, curricular design, learning environment optimization, and institutional management integration (Education Quality Standards, 2024).

Leadership functions as a primary change catalyst, influencing academic achievement and institutional climate (Leithwood et al., 2004). Curricular quality serves as the pedagogical foundation, emphasizing critical thinking development, creativity enhancement, and problem-solving capacity while reducing mechanical learning approaches (Biggs, 2003). Assessment methodologies must evaluate comprehensive understanding and knowledge application capabilities (UNESCO, 2015).

Environmental optimization requires advanced infrastructure development (Chimbelu, 2011) and community engagement enhancement (Hodge, 2010). Pedagogical excellence demands sophisticated communication methodologies, classroom management expertise, and technological integration capabilities (Koehler & Mishra, 2021). Professional development continuity remains essential for theoretical and methodological currency (Timperley & Alton-Lee, 2024). Professional learning communities facilitate skill enhancement and environmental optimization (Fullan et al., 2023). Effective administration requires strategic vision development and community partnership cultivation (Popkewitz, 2000). Systematic performance evaluation ensures alignment with evolving educational challenges (Kraft, 2014).

Leadership Role Delineation. Contemporary educational leadership transcends administrative functions to encompass change management, team development, and data-driven decision-making capabilities. Success requires strategic vision formulation that catalyzes institutional performance optimization (Hargreaves & Fullan, 2012; Fullan, 2014). Communication proficiency and emotional intelligence constitute foundational elements for trust development and relationship optimization within educational communities (Miao et al., 2018; Boyatzis et al., 2017).

Professional development facilitation represents a critical leadership function, with administrators directly influencing pedagogical competency enhancement through systematic guidance and training protocols (Darling-Hammond & DuFour, 2019). Community engagement optimization remains integral to leadership effectiveness, facilitating support system development and learning outcome enhancement (Henderson & Mapp, 2002). Change management efficacy requires emotional intelligence application for resistance mitigation and learning culture promotion (Schein & Schein, 2017; Kotter, 2012).

Leadership Models in School-Based Curriculum Development. School leadership plays a fundamental role in curriculum development through several distinct leadership paradigms.

Instructional Leadership. This model emphasizes direct leadership influence on pedagogical practices and learning outcomes. Leaders implementing this approach prioritize establishing explicit institutional objectives, orchestrating educational programs, and cultivating

positive learning environments (Hallinger & Murphy, 2013). Contemporary research demonstrates the substantial impact of effective instructional leadership on enhancing pedagogical quality and student achievement during curriculum development processes (Boyce & Bowers, 2018).

Transformational Leadership. The transformational model centers on motivating and inspiring faculty to embrace curricular innovations through shared vision-building, collaborative practices, and trust development (Bass & Riggio, 2006). Such leaders promote accountability, facilitate professional development, and nurture innovative practices (Leithwood & Sun, 2012). Research indicates this approach's particular efficacy during periods of significant educational reform (Gumus et al., 2018).

Distributed Leadership. This paradigm emphasizes the distribution of leadership responsibilities among teaching staff to enhance collaboration and facilitate curriculum reform implementation (Spillane, 2006). The model capitalizes on faculty expertise, promotes collaborative decision-making, and establishes task-focused teams, thereby enhancing teacher engagement and curricular outcomes (Harris et al., 2019).

Democratic Leadership. Democratic leadership encompasses the engagement of all educational stakeholders in curricular decision-making processes, fostering institutional ownership and collective responsibility (Woods & Gronn, 2009). This methodology incorporates open dialogue, systematic feedback collection, and consensus-building, supporting sustainable curricular reform initiatives (Uljen & Ylimaki, 2017).

Constructivist Leadership. The constructivist approach empowers educators and students to develop nuanced understanding of curricular modifications through collaborative engagement and critical analysis (Lambert et al., 2002). This model emphasizes problem-solving, experimentation, and active student participation, contributing to sustainable educational reforms (Baxter et al., 2021).

Optimal Leadership Model for Curriculum Development. Research suggests that the most effective approach synthesizes instructional and transformational leadership elements. While instructional leadership concentrates on pedagogical impact, transformational leadership facilitates organizational change adoption. In developing nations, balancing quality enhancement with organizational transformation is paramount. This integrated approach optimizes curriculum implementation and reform adoption (Hallinger & Murphy, 2013; Bass & Riggio, 2006). Contemporary scholarship increasingly emphasizes context-responsive leadership, necessitating adaptive leadership approaches based on institutional requirements (Hallinger, 2018).

School Readiness

1. Definition

School readiness represents a multidimensional construct, interpreted variously within educational scholarship. Bender et al. (2011) define it as essential competencies children possess upon school entry. UNICEF (2012) provides a more comprehensive framework, encompassing child preparedness, institutional readiness, and community support systems.

The National Education Goals Panel established five fundamental domains: physical development, social-emotional competence, learning approaches, linguistic development, and cognitive capability (Kagan et al., 1993, cited in UNICEF, 2012). Contemporary research emphasizes specific competencies including literacy, numeracy, instructional compliance, collaborative capacity, and learning engagement (Rouse et al., 2005). The Education 2030 Framework for Action conceptualizes readiness as achievement across developmental domains, including health, nutrition, and age-appropriate development across multiple competencies (UNESCO, 2016, p.39).

2. The Importance of School Readiness

School readiness significantly influences educational trajectories and life outcomes (Duncan et al., 2007; Heckman & Karapakula, 2019). Research demonstrates enhanced academic, health, and psychological outcomes, with readiness investments yielding superior returns compared to remedial interventions (Campbell et al., 2019).

The conceptual framework of school readiness has expanded to incorporate social-emotional competencies, executive functioning, and family-community support systems. Within the Lebanese educational context, successful curriculum implementation necessitates enhanced administrative leadership capabilities and sufficient allocation of human and material resources to optimize educational outcomes.

3. School Readiness and Curriculum Development

Curriculum development demands systematic planning, with institutional readiness serving as a critical determinant of implementation success. The process encompasses multiple essential dimensions:

Implementation Framework. The implementation process requires systematic attention to leadership development, pedagogical preparation, and resource management. School leaders must demonstrate capacity for change management through sustained professional development (Fullan, 2019), while educators require continuous skill enhancement, particularly in technological integration (Duflo, 2012). Resource allocation must prioritize educational materials and technological infrastructure (Chimbelu, 2011).

Stakeholder Integration and Cultural Considerations. Successful implementation necessitates comprehensive stakeholder engagement across school and community constituencies (UNESCO, 2015). Assessment methodologies must evolve to align with curricular objectives, emphasizing skills application (Abdu-Raheem, 2012). Cultural consciousness in curriculum design ensures reflection of local traditions (Raditoaneng, 2011).

Technological and Inclusive Frameworks. Educational technology integration serves as a fundamental learning support mechanism (O'Neill, 2014). Inclusive educational practices must address diverse learning needs, including those of students with disabilities (UNESCO, 2016). Institutional climate significantly influences change adoption processes (Smith & Johnson, 2018).

Strategic Planning and Capacity Development. Implementation success requires comprehensive planning incorporating institutional self-assessment and clear prioritization (Wilson & Taylor, 2017; Davis et al., 2021). Pre-implementation preparation emphasizes clear goal articulation (Anderson & Lewis, 2019; Harris & Robinson, 2020), while pilot initiatives facilitate capacity building and strategy refinement (Mitchell & Carter, 2022).

4. The Impact of School Infrastructure on School Readiness

Physical infrastructure significantly impacts educational effectiveness and quality outcomes. Infrastructure enhancement encompasses facility optimization, class size management, and safety protocols, contributing to improved academic performance (Barrett et al., 2019). Research indicates that infrastructure investments correlate with enhanced academic outcomes, exemplified by improved attendance rates following health facility upgrades (Adukia, 2017).

Institutional size optimization suggests maintaining primary school populations at approximately 500 students and secondary institutions at 1000 students, facilitating reduced transit times and enhanced community engagement (Leithwood & Jantzi, 2009). While class size reduction may enhance participation, instructor effectiveness remains a paramount determinant of educational outcomes (Hattie, 2009).

5. The Role of School Leadership in Developing School Readiness

Educational leadership constitutes a fundamental determinant of institutional quality and readiness development. System effectiveness depends on the synergy between pedagogical excellence and administrative leadership (Leithwood et al., 2020). Collaborative frameworks and effective leadership facilitate enhanced teacher support and improved educational outcomes (Hallinger & Heck, 2010).

Sustainable educational transformation requires fundamental shifts in pedagogical culture (Fullan, 2016), necessitating active participation from both instructional and administrative staff (Hargreaves & Fullan, 2012). Resource-constrained environments present particular challenges due to established institutional structures (Tikly, 2011).

Guidance counseling, differentiated education, and the use of low-cost educational materials contribute to improving learning, especially in developing countries (Glewwe & Muralidharan, 2016). It is also important to address the challenges faced by students with disabilities by providing suitable educational facilities that ensure equitable access (UNESCO, 2020).

6. Challenges of School Readiness for Curricula Design in Developing Countries

Developing nations face complex challenges in curriculum development, including sociocultural factors, economic constraints, and political instability. These contexts require curricula that address community needs while adapting to technological advancement and contemporary educational philosophy (Chimombo, 2005). Traditional pedagogical approaches

demonstrate diminishing effectiveness in the digital era, necessitating increased emphasis on market-relevant skills and technological competencies (Anderson, 2002; Kraft, 2014).

Educational outcomes are influenced by the interdependent factors of curriculum design, instructional methodology, and assessment frameworks (Biggs, 2003). These elements should prioritize development across cognitive, ethical, physical, and social domains, including fundamental competencies such as literacy and critical thinking (Hodge, 2010).

Political Dimensions. Educational systems in developing nations face significant challenges due to political instability, which manifests through fluctuating governmental policies affecting funding allocation, curricular decisions, and personnel management.

UNESCO data indicates that armed conflicts have resulted in 34 million children being excluded from educational opportunities in conflict zones. While education serves as a mechanism for conflict reduction and hope cultivation, military engagement often results in infrastructure degradation. Additionally, political instability frequently compromises governmental capacity to fulfill educational financing obligations.

Economic Constraints. Socioeconomic factors significantly impact educational access and outcomes in developing regions. Key challenges include:

- Resource limitations affecting institutional infrastructure
- Educational cost barriers across public and private sectors
- Insufficient funding for facilities and qualified instruction
- Child labor prevalence due to economic pressures
- Infrastructural deficiencies in educational facilities

Sociocultural Factors. Educational advancement faces multiple sociocultural impediments, including:

- Linguistic challenges in multilingual curriculum environments
- Literacy disparities affecting educational participation
- Displacement-related educational disruption, particularly evident in Syrian and Lebanese contexts

Educational System Challenges. Contemporary educational systems in developing nations face significant operational challenges:

- **Quality and Efficiency.** UNESCO (2015) identifies a "global learning crisis," with approximately 250 million children lacking fundamental literacy skills despite years of formal education. This efficiency deficit is exacerbated by inadequate teacher preparation.
- **Institutional Effectiveness.** Educational effectiveness is compromised by:
 - Limited learner engagement.
 - Suboptimal pedagogical methodologies.
 - Insufficient professional development opportunities (Abdu-Raheem, 2012).

- Resource constraints affecting educational materials (O'Neill, 2014).
- Limited capacity for special education integration.
- Challenges in non-formal education quality assurance.

7. Conclusion

The development of curricula requires a comprehensive approach that transcends traditional classroom settings and relies on effective school leadership, appropriate infrastructure, cultural transformation, strategic investment, and technological integration. In developing countries, curricula must be designed with consideration of challenges such as limited resources and high classroom density. Research emphasizes the importance of school leadership that combines emotional intelligence and strategic vision to create a stimulating learning environment that supports innovation and prepares learners to face the challenges of the 21st century.

School Readiness to Implement the Developed Curricula in the Lebanese Context

1. Plans and Strategies

Efforts to develop the educational and school system in Lebanon have been ongoing since the 1990s, resulting in the establishment of various plans, strategies, programs, and projects that mark significant milestones in educational development. Some initiatives built upon past experiences, strengthening the accumulation of expertise and laying the groundwork for subsequent initiatives. However, not all of these efforts have been successfully implemented due to various considerations related to the political, economic, and administrative realities.

One of the recent plans is the five-year General Education Plan in Lebanon (2021-2025), launched by MEHE in 2021, alongside initiatives from the Centre for Educational Research and Development in 2022. This led to the launch of the Lebanese National Framework for Pre-University General Education Curriculum (hereafter referred to as the National Curriculum Framework) on December 15, 2022, following the issuance of several reference frameworks and documents on August 23, 2022.

The "Plan for Educational Advancement in Lebanon," prepared by the Centre for Educational Research and Development in May 1994 and approved by the Council of Ministers in August of the same year, laid the foundation for the curricula adopted in Lebanon since 1997. In 2000, the Centre for Educational Research and Development prepared the strategic directions for education and training in Lebanon until 2015, focusing on school effectiveness, particularly under the fifth axis: "Management of Educational Affairs," which highlights institutional development. According to indicators from the Centre for Educational Research, enrollment in public schools did not improve as a result of the implementation of the new strategy; rather, it experienced a continuous decline in 2014-2015, alongside an increase in indicators of school delays in public schools, which were priorities of the strategy. Conversely, the number of free public and private schools declined in all provinces, while private schools showed a slight increase (Shuaib, 2015).

A key milestone in the educational development journey was the strategic vision for national education in Lebanon, prepared by the Lebanese Association for Educational Sciences in 2007.

This document emphasizes school readiness and the ability to implement curricula, including expanding teacher contracts in primary and secondary public schools, alongside laws gradually reducing teacher working hours. Additionally, extensive training was carried out by the Ministry of Education to include all teachers in the public sector and a wide range of private education, aiming to familiarize them with the new curricula at that time (UNESCO and the Lebanese Association for Educational Sciences, 2002).

In 2000, a continuous training project for teachers was developed to create a pool of trainers responsible for the ongoing training of teachers in basic training centers across six provinces, supporting local teacher roles in regions to serve as sources of learning as well as accredited training centers. The project also aimed to create a network for documentation and establishing skills based on modern technologies, particularly the internet, with mechanisms for assessing needs (CRDP, 2001). Practical work on continuous training began in the academic year 2003-2004 (Gharib, 2008).

Studies addressing school readiness and its adequacy for handling "new" curricula revealed a deficiency in material educational resources in public schools (labs, libraries, workshops, computers), according to a report by the Association of Secondary Education Professors in Lebanon in 2001 (Lebanese Association for Educational Sciences, 2007). If present, these resources are often underutilized due to administrative inefficiency and the lack of qualified technical staff, with a focus on what is not evaluated in school exams.

Despite curricula emphasizing a learner-centered approach and active learning methods, the reality reflects a predominance of traditional teaching methods centered on the teacher, along with a deficit in the school climate characterized by weak relationships among students, teachers, administration, and parents (Henningsen & Zebian, 2003). The National Curriculum Framework (2022) and other reference frameworks developed by the Centre for Educational Research and Development (2022) focus on this issue, emphasizing community partnerships, school well-being, and continuous professional development.

Regarding school management, studies on the national education strategy in Lebanon reveal weaknesses in administration, including limited powers for school principals in management and leadership, hiring criteria for administration that do not require a degree in educational management, the lack of compulsory training programs for principals at Lebanese universities, and the absence of a system for performance evaluation. Currently, there is no institutional framework for preparing principals in educational leadership and management, nor for their professional development (Lebanese Association for Educational Sciences, 2007).

The discussion of these plans, strategies, and initiatives, along with their evaluation, is essential for exploring the readiness of schools to implement the approved curricula, which remain relevant today. It is important to highlight that, alongside these plans, MEHE has undertaken multiple developmental projects, including the "School Leadership Development Program" through the first educational development project (2005–2009), effective school standards, the Study Project (2013), and Study Project 2 (2013–2016). These initiatives contributed to the implementation of a sector development plan for education and the monitoring of school development programs. Furthermore, a professional development program for managers and administrators was executed through the second educational development project (2014–2016).

As previously noted, the Ministry has launched the five-year General Education Plan in Lebanon (2021–2025) and is currently preparing the reform map for MEHE (2025). Most of these plans and strategies, along with the associated studies and subsequent research, provided the foundation for establishing the national curriculum framework and supporting foundational documents, as well as a series of other reference frameworks. These encompass the reference framework for leadership competencies across all stages of pre-university education, the reference framework for teacher trainer competencies, the reference framework for school principal competencies, the reference framework for coordinator competencies, the reference framework for librarian competencies, the reference framework for active community partnerships, the reference framework for academic accreditation—updated standards for effective schools, and the reference framework for technical competencies in resource centers at teacher education institutions. These frameworks interconnect and overlap, offering diverse solutions and interventions through procedural implementation that supports both past and current plans and strategies.

In 2017, MEHE, in collaboration with CERD, launched the "Reference Frameworks – Supporting Quality Education in Lebanon," which includes four reference frameworks for competencies: teacher, teacher trainer, educational counselor, and psychological-social advisor.

2. Indicators of School Readiness in Lebanon

Assessing the readiness of any school necessitates evaluating its capacity to achieve specific goals, particularly the implementation of the developed curriculum. Thus, school readiness is defined as the ability to meet the requirements of this curriculum at all levels, relying on the guidelines outlined in the national curriculum framework and its supporting foundational documents, as well as other reference frameworks.

Consequently, the study will focus on the key aspects addressed by these relevant frameworks concerning school readiness to implement the currently developed curriculum, beginning with the academic accreditation reference framework: the updated standards for effective schools, which emphasizes five areas.

By fulfilling these areas, the central question—"What kind of school do we want?"—becomes attainable. These areas include school leadership, education and learning, school environment, community partnerships, and digital learning and information and communication technologies. The rationale for linking these areas with the effectiveness of schools in implementing the developed curriculum will be explored.

School Management and Leadership Competencies. The readiness of a school to implement developed curricula cannot be fully evaluated without considering the role of the school principal and their leadership and administrative competencies. The principal's role, alongside other functional roles, is interconnected with the level of readiness. The principal indirectly influences student outcomes (Heck & Hallinger, 2003) and plays a pivotal role in improving educational quality and restructuring institutions. To achieve these competencies, it is necessary to review the criteria for selecting principals and their responsibilities, emphasizing emotional intelligence, critical thinking, and creativity.

The leadership competency reference framework (2022) focuses on four main areas: specialized professional practices, professional relationships, continuous professional development, and professional ethics. Additionally, CERD has prepared a manual based on this

framework, which includes a 360-degree evaluation of principals through various assessment methods.

Self-Assessment. The concept of an effective school is predicated on its ability to engage in continuous self-assessment to ensure overall quality, as articulated in the academic accreditation reference framework: updated standards for effective schools (CERD, 2022). This framework is based on global standards that encompass governance, quality assurance in education, and performance improvement. Within the context of addressing the central question of the national curriculum—"What kind of school do we want?"—assessment emerges as a fundamental process for educational development. It aims to identify strengths for reinforcement and weaknesses for improvement, rather than merely judging individuals. Enhancing weaknesses while reinforcing strengths significantly boosts a school's readiness to effectively implement the developed curriculum.

Strengthening Community Partnerships. Community partnerships serve as a critical indicator of a school's effectiveness in implementing the developed curriculum, despite being absent from many previous plans. The national curriculum framework emphasizes administrative flexibility, encouraging self-initiatives and collaboration with local communities.

Research indicates that schools with high family involvement achieve better academic outcomes (Sharrokh, 2004), and community partnerships contribute to enhancing the educational process and the role of educational institutions within society (Swap, 2013). The national curriculum framework underscores the necessity of strengthening relationships between educational institutions and community entities to promote comprehensive learning.

The community partnerships reference framework (2022) identifies six areas of partnership: voluntary work, career guidance and job market engagement, prevention and protection, awareness initiatives, parental involvement, and public relations and community engagement. These partnerships enhance the role of schools in serving society and addressing its challenges, making them integral to school readiness for implementing the developed curriculum.

Social and Emotional Learning. Social and emotional learning is a key indicator of school readiness, as the developed curriculum places significant emphasis on this principle. This focus is supported by the national curriculum framework and various educational projects executed by the CERD and MEHE, including the psychological and social support program (2020), the recovery plan post-COVID-19, and the summer school project (2021-2023), as well as the national framework for social and emotional learning (2023).

Social and emotional learning plays a central role in education and serves as a measure of school effectiveness, with educational management contributing to fostering an environment that supports this type of learning. The national curriculum framework (2022) emphasizes inclusivity, integrated education, and achieving a balance between cognitive, social, and emotional components, necessitating a high-quality educational environment and strong leadership skills for effective management.

School Well-being. A school demonstrates its effectiveness largely through its capacity to promote well-being in all its dimensions. The significance of this is evident in the creation of a positive school environment that fosters well-being, social justice, and integration, alongside a new strategy aimed at enhancing mental health services within schools.

The school well-being reference framework adopts an advanced policy for school well-being in Lebanon, addressing various competencies encompassing physical, health, environmental, social, and emotional aspects, as outlined within the cross-cutting competency areas established by the national curriculum framework for general education. These competencies aim to "support teachers and learners in constructively dealing with changing circumstances, challenging living conditions, social crises, and psychological trauma." It also addresses issues faced by learners, such as bullying, dropout, violence, and interruption of education due to crises and health disasters.

The well-being framework incorporates initiatives undertaken by CERD in coordination with MEHE to promote well-being, including the psychological and social support program during emergencies and crises, the academic accreditation reference framework, child protection policies in the school environment, and the reference framework for social and emotional learning in Lebanon.

The framework considers the physical infrastructure of schools, specifically the condition and utilization of facilities, proposing new models to address issues such as schools that do not meet the student-to-teacher ratio or appropriate school size. This underscores that achieving school readiness necessitates attention to both human and physical aspects within schools, ensuring that surrounding material conditions meet the requirements of the developed curriculum while prioritizing school well-being.

The physical aspects of a school encompass location, building condition and standards, class size, availability of green spaces, recreational facilities, safe and clean restrooms, teacher lounges and meeting rooms, libraries, laboratories for practical activities, and digital information and communication systems with inclusive education technologies and equipment, as well as considerations for lighting, ventilation, heating, cooling, and maintenance needs.

The human aspects involve all school staff and their professional qualifications and competencies, including administrative teams, teachers, technicians, and other personnel providing services to the school.

In terms of school leadership and management, the academic accreditation reference framework (2022) delineates seven sub-areas within school leadership: strategic leadership, instructional leadership, operations management, professional development leadership, communication leadership, data utilization, and school resource management.

Providing Academic Support. The National Curriculum Framework (2022) emphasizes the importance of educational support by aiding all learners in developing essential learning, life, and work skills, with a focus on transversal competencies, health, well-being, and guiding teachers towards enhancing education and its development (National Framework, p. 36). This is the responsibility of schools, which must adopt a holistic and inclusive approach to learning, considering equitable opportunities for all learners and their needs—an aspect highlighted in the Lebanese curriculum, particularly for students with special needs (learning difficulties, disabilities, and gifted students).

This implies that schools should be equipped with necessary human, material, and logistical resources to meet these objectives. Furthermore, schools are encouraged to engage in forms of collaboration with parents to address academic challenges among certain students, a principle outlined in the curriculum development guidelines (p. 36). Through this partnership, schools organize support processes in cooperation with their teaching staff, parents, and the local community.

Human, Material, and Logistical Readiness. Economies of scale studies underscore the importance of the school building in achieving educational objectives through its proper preparation and equipment, including laboratories, and information technology. Indicators such as the student-to-teacher ratio, the number of technicians and their training level, classroom preparation, and availability of safe recreational and sanitary facilities are essential. Inclusive education requires adequate physical, human, and technological readiness to implement developed curricula effectively.

Technology serves as a critical indicator of material readiness, necessitating its constant adoption and updating, along with training staff on its usage, aligning with the 2022 Academic Accreditation Framework, which independently addresses digital learning. This framework also covers the school environment, focusing on relationships within the school community, student participation in activities, and the well-being of the school community through complaint mechanisms and psychosocial support, ensuring a healthy and safe environment for all.

Professionalizing Education. According to the Organisation for Economic Co-operation and Development (2015), there are five aspects of professionalizing education: making teaching a desirable profession, developing teachers' knowledge and competencies, improving teachers' hiring and retention conditions, retaining effective teachers in schools, and implementing related policies.

MEHE, along with CERD, have launched frameworks to support educational quality (2017), covering teacher competencies, teacher trainers, educational counselors, and social-psychological coordinators. In 2022, additional frameworks were introduced for school principals, coordinators, library librarians, and school directors. These frameworks set the required professional competencies and the essentials for professionalization in line with global trends, considering the Lebanese context and its educational system.

Professional competencies are categorized into four main areas: specialized professional practices, continuous professional development, professional relationships, and professional ethics. Continuous professional development is crucial in enhancing the competencies of school personnel, which positively impacts overall school performance. Continuous professional development focuses on building school community capabilities through the assessment of needs and aspirations. This development is not limited to school leaders but extends to all staff to keep pace with the changes imposed by the application of developed curricula and the demands of modern challenges.

Contract teaching has become a prominent phenomenon in the Lebanese education sector due to several factors, including the cessation of teacher preparation at educational colleges, particularly at the Lebanese University since 2001. With irregular preparation courses and a limited number of successful candidates to meet schools' needs, the percentage of contract teachers has risen to 55.1% of the total teaching staff (Statistical Bulletin, CERD, 2022-2023). This proportion presents a significant challenge for professionalization, as more than half of teachers lack organized professional preparation, leading to performance disparities and inconsistent professional standards. Addressing this issue is essential for achieving professional standards and enhancing education quality in Lebanon.

3. Lebanese Studies on School Readiness

3.1. Introduction

The subsequent section presents an overview of various Lebanese studies and reports addressing school readiness in Lebanon. Efforts have been made to identify the objectives of each study and their key findings to ensure alignment with our topic, leveraging these results to establish indicators of school readiness. These studies primarily focused on the impact of curriculum implementation on educational quality and schools' readiness to receive students, alongside the influence of infrastructure and educational resources on curriculum application success. Studies are presented chronologically from the oldest to the most recent.

3.2. Overview

Research on school readiness in Lebanon highlights challenges and strategies related to implementing educational curricula, infrastructure quality, resource availability, and the impact of socioeconomic and geographical disparities. These studies collectively underline the critical role of government support, NGO partnerships, and international aid in enhancing school readiness and educational quality.

3.3. Key Findings Across Studies

NGO and Community Partnerships (Shuayb, 2014)

- Partnerships with NGOs and international organizations like UNICEF have improved school readiness, particularly in underserved areas.
- Initiatives provided financial and technical support, teacher training, and psychosocial assistance to students.
- Recommendations include establishing sustainable partnerships and regular evaluations of NGO programs.

Refugee Education (Dryden-Peterson, 2016).

- The influx of Syrian refugees strained public schools, leading to overcrowded classrooms and resource shortages.
- Refugee students faced difficulties adapting to the Lebanese curriculum, highlighting inequities between local and displaced students.

Curriculum Implementation (Farhat, 2019).

- Schools struggle with implementing curricula due to inadequate teacher training and insufficient resources.
- Community engagement and improved infrastructure are essential for effective curriculum delivery.

Education Public Expenditure (World Bank, 2019).

- Lebanon's educational system suffers from underfunding, particularly in rural areas.
- Policy reforms and equitable resource allocation are necessary to bridge urban-rural divides in school readiness.

Socioeconomic Disparities (El-Khoury, 2020).

- Economic and geographic inequalities disproportionately affect rural schools, which lack resources and qualified staff.
- Investments in infrastructure and teacher training are critical to addressing these disparities.

Economic Crisis Impact (Shuayb & Al-Salman, 2020).

- The Lebanese economic crisis led to severe resource shortages in schools, a decline in teacher wages, and increased dropout rates.
- Recommendations include financial support for schools, system restructuring, and enhanced international cooperation.

COVID-19 Challenges and Innovations (Karami & Hamadeh, 2021).

- Weak digital infrastructure hindered the transition to online learning, particularly in rural areas.
- Innovations included blended learning and community-supported solutions to sustain education during the pandemic.

Beirut Explosion Rehabilitation (UNESCO, 2021).

- The Beirut port explosion damaged 150 schools, affecting over 85,000 students.
- Rehabilitation efforts focused on infrastructure repair, psychosocial support, and emergency preparedness.

Educational Inequalities (Toma & Vervenne, 2022).

- Rural schools face significant disadvantages in resources, infrastructure, and access to digital technology.
- Targeted government funding and community awareness programs are needed to reduce educational inequities.

UNICEF Education Brief (2022). Economic hardship increased dropout rates and deteriorated educational quality.

- UNICEF's programs emphasized financial aid, resource provision, teacher training, and support for vulnerable communities.

Ministry of Education and Higher Education and World Bank (2024)

Analytical Study on Teacher Utilization in Lebanon. This study aims to enhance resource efficiency in Lebanon's education sector. Key findings reveal that student-to-teacher ratios in Lebanon are significantly below OECD averages, standing at 13.01% in primary education and 5.91% in secondary education. Despite this, inefficiencies persist as many teaching hours are allocated to non-educational tasks. Additionally, contractual challenges are prominent, with 50% of contract teachers in secondary schools working seven hours or less per week, while class sizes

remain smaller than global averages. These factors highlight critical areas for optimization to improve the effective utilization of teaching resources.

3.4. Summary of Studies on the Educational System in Lebanon

The reviewed studies provide a comprehensive analysis of the challenges and opportunities within Lebanon's education system. These challenges, influenced by economic, social, and health crises, as well as national disasters like the Beirut port explosion, have significantly strained the sector's capacity to deliver quality education.

The studies collectively emphasize the critical importance of partnerships between communities and international entities to support education. They introduce the concept of "school readiness," which encompasses human, material, and technical dimensions essential for diagnosing and addressing deficiencies in the educational system.

3.5. Key Insights

Infrastructure deficits present a persistent challenge, with schools struggling with overcrowding, inadequate facilities, and limited technological resources. Financial constraints further hinder curriculum implementation, teacher training, and access to essential learning materials for students.

Socioeconomic and geographic disparities exacerbate these issues, with rural schools being less equipped than their urban counterparts, deepening inequality. Additionally, the sector continues to grapple with the compounded effects of economic instability, a growing refugee population, the Beirut explosion, and the COVID-19 pandemic.

Despite these challenges, the studies highlight actionable strategies, including structural reforms, optimized resource allocation, and enhanced teacher utilization, as well as the need for collaborative efforts to rebuild and strengthen the education system in Lebanon.

CHAPTER THREE

METHODOLOGY

Study Design

1. Research Methodology

The study relies on descriptive and comparative approaches adopting a mixed methods approach that combines quantitative and qualitative methods. This approach aims to provide a deeper and more comprehensive understanding of the issues raised which is necessary when dealing with complex educational environments. This approach allows for the collection of quantitative data through questionnaires targeting several categories of the school community, in addition to qualitative data through interviews or focus groups. Data triangulation contributes to enhancing the reliability and validity of the results by comparing and confirming data from multiple sources making the analysis more accurate and relevant to reality (Sammons & Davis, 2017).

2. Type of research

This study is classified as applied research because it focuses on addressing clear and specific educational issues and challenges in the Lebanese context. The research aims to provide realistic and implementable solutions to improve school readiness and enhance the efficiency of school leadership in implementing the developed curricula. Applied research is essential in developing practical strategies that are directly applicable in the educational settings (Mejeh et al., 2023).

3. Research design

A cross-sectional design was adopted to collect data from a diverse group of participants in a single period of time. This design is considered appropriate for assessing the current status of school readiness in Lebanon in both sectors public and private. It also aligns with school leadership competencies in the context of implementing the developed curricula. This design allows for identifying the different needs and gaps of schools at the same time, providing a clear vision of the challenges and opportunities available and helping to propose effective recommendations based on the results (Camerino et al., 2012).

Population Sample

The stratified random sample method was adopted to select participants in order to achieve a comprehensive and accurate representation of all educational sectors. The sample consists of (338) schools, distributed among public and private schools in various Lebanese governorates ([See appendix 6 for more details](#)).

Although the questionnaires were distributed to (338) schools, and all of them were contacted, (279) schools responded and actually participated in the study ([See appendix 7 for more details](#)). However, comprehensive representation of the different sectors remained available which enhances the accuracy of the results and reflects the required geographical and school diversity.

The study population consists of (279) schools distributed across various pre-university academic educational sectors as follows:

- (147) schools from the public sector,
- (30) schools from free private education,
- (98) schools from non-free private education,
- (4) UNRWA affiliated schools.

The study involved:

- (279) principals
- (368) supervisors
- (442) coordinators
- (1901) teachers.

The surveys focused on assessing the readiness level of the participating schools, identifying their needs, opportunities, and differences. They also explored the experiences of participants, shedding light on the challenges they faced under the current curricula, as well as their aspirations and hopes for the new curricula.

Rationale for Selecting the Sample

- Achieving a balance in the representation of all educational sectors to ensure diversity of viewpoints.
- Reflecting the geographical and school distribution in Lebanon accurately.
- Enhancing the credibility of the study results by engaging all stakeholders in a balanced manner.
- Selecting the sample from different governorates contributes to identifying potential differences among schools in different regions and educational sectors. As a result, it will provide recommendations that are widely applicable.

Data Collection Tools

Several tools were used to collect data to ensure the comprehensiveness and accuracy of the results:

- **Questionnaires:** Four questionnaires were developed for school principals, supervisors, coordinators, and teachers. This tool was selected because it allows for the collection of large-scale quantitative data quickly and efficiently (See [appendix 8](#), [appendix 9](#) and [appendix 10](#) for more details).

- **Interviews:** (11) interviews were conducted with officials in the Ministry of Education and Higher Education (Director General of Education, Director of Secondary Education, Director of Primary Education), the President of the Center for Educational Research and Development, Director Generals from private schools, and experts who worked on developing curricula. These interviews aimed to investigate the process of developing curricula and the necessary needs to support the success of these curricula, the extent of schools' readiness, and the plans and mechanisms in place to support this readiness. This tool helped in obtaining deep insights into curriculum development and implementation tools ([See appendix 11 for more details](#)).
- **Focus groups:** It included (16) focus groups with students from secondary classes in both public and private sectors representing various Lebanese governorates. This tool aimed to explore students' perspectives directly which added a qualitative dimension to the analysis ([See appendix 12 for more details](#)).

Description of the tools and justifications for their choice

1. The questionnaire:

- *Title of the questionnaire:* "School Readiness and Effective Leadership in Light of the Developed Curricula in Lebanon".
- *Target group:* School principals, supervisors, coordinators, and teachers.

The Objective of the questionnaire is to:

- Determine the sum of the human and material needs of schools.
- Determine the level of readiness to implement the developed curricula.
- Evaluate the role of school leadership in facilitating the educational process and ensuring the quality of education.
- Guaranteed participation: regarding data confidentiality and use for scientific research purposes only.

Questionnaire sections:

- **Personal data** (closed and optional questions): The data aims to classify participants based on age, gender, employment status, experience, academic degree, and educational region. Such data is necessary to analyze trends and differences among different categories of target groups according to demographic factors which can affect the level of school readiness and leadership.
- **Section One: Human Resources in the School** (only in the principal's questionnaire) - **Specific quantitative questions** (inputting numerical values): These questions allow for the collection of accurate data on the distribution of human resources in the school. This section outlines the organizational structure and employee count within the school, enabling an assessment of any shortages or surpluses in human resources. It can also be

used to determine whether schools follow appropriate recruitment policies to meet the needs of advanced education.

- *Section Two: Overall, School Readiness - Closed Questions (multiple choice)* with case specifications: aims to evaluate the readiness of the school in terms of infrastructure and facilities. These questions provide multiple options covering various aspects such as the availability of educational tools, technical devices, and the suitability and condition of facilities. This design allows for an accurate and comprehensive assessment of each element in the school.
- *Section Three: Technology and Digital Infrastructure - Closed Questions (Multiple Choice):* The questions provide a clear picture of the availability and use of technology and modern educational tools in classrooms, in addition to the technology-related training needs of each target group, and the aspects of support provided by the school administration to use technology. These are essential for implementing the developed curricula.
- *Section Four: Leadership and Administrative Competencies:* This section includes four categories with sub-sections as follows:
 - Category One: Strategic Planning and Decision Making
 - Category Two: The principal's Leadership and Administrative Competencies
 - Category Three: Follow-up and Evaluation Processes
 - Category Four: Future Needs and Expectations

The questions in this section vary between **closed and open** which help in collecting quantitative and qualitative data at the same time. These questions are designed to measure the effectiveness of school leadership and management in the areas of strategic planning, decision-making, the principal's leadership and administrative competencies, monitoring and evaluation processes, as well as future needs and expectations.

Closed questions. Fixed choices (such as: always, often, sometimes, never) are utilized on a Likert scale to assess the degree of frequency or importance of a behavior or process. These questions allow for easy quantitative analysis by quickly classifying data according to specified criteria.

Open questions. Such questions ask participants to clarify the **challenges and needs** of the school or human and material resources. They facilitate the collection of personal and in-depth opinions as well as additional details that may not be covered by closed questions.

- **First category: Strategic planning and decision-making:** These questions aim to **assess the extent to which the planning process** is organized in the school and the extent to which different bodies are involved in decision-making. They serve as assets for identifying the **priorities of school management** and frameworks related to strategic planning.

- **Second category: The principal's leadership and administrative competencies:** These questions focus on the **leadership styles** adopted in the school (such as participatory or individual leadership) and how they affect innovation and motivation. It aims to identify the **basic leadership skills** required in the school context and identify the gaps that principals may need to develop.
- **Third category: Follow-up and evaluation processes:** This category measures the **effectiveness of the used evaluations** to measure the performance of teachers and school management. It aims at identifying **tools of communication and follow-up** among the different parties within the school, with parents, the local community and supporting bodies to ensure improved performance and sustainable quality. It extends to include the tools used to identify potential problems and works on devising solutions by the school administration in addition to supervision, classroom visits, guidance, support, and follow-up on improvements and recommendations resulting from evaluations. The list goes on to include the reality of implementing school support for struggling students in schools.
- **Fourth category: Future needs and expectations:** It seeks to identify the **training needs** of principals and school workers to achieve sustainable development. It facilitates the development of plans that mainly **support and ameliorate resources** - whether material or human - and keeps pace with educational development in the future.

Timing of questionnaire distribution. Upon obtaining the approval of the Director General of Education to implement the study tools in the sample schools, a survey study or pilot test of the questionnaire questions was conducted on a small group of schools (10 schools) on Thursday and Friday, November 14 and 15, 2024. Minor amendments were made to refine the questions based on the feedback received. After that, the links of the four questionnaires, directed to the principal, supervisor, coordinator and teacher were sent to all sample schools (338 schools) in various sectors and governorates. The concerned parties in the schools were contacted directly to fill out the questionnaires during the period extending from Monday November 18, 2024 to Monday December 2, 2024.

The deadline was extended to Wednesday, December 4, 2024. Responses were obtained, as confirmed by the statistics officer at the Center for Educational Research and Development. In total, responses were collected from 279 schools across various sectors and governorates in Lebanon.

Why was the questionnaire selected as a main tool?

- **Easy data collection.** The questionnaire allows for the collection of large amounts of data from a wide range of schools in a short time.
- **Comparison and analysis.** The questionnaire compares different schools in sectors based on uniform criteria, thus providing a homogeneous analysis.
- **Accuracy and objectivity.** Closed and accurate answers elude personal bias which enhances the reliability of the data.

- **Diversity in questions.** Combining open and closed questions provides an opportunity to collect quantitative and qualitative data while presenting a comprehensive picture.

2. Interviews

Interview title: "School Readiness and Effective Leadership in Light of the Developed Curricula in Lebanon".

Target group: Interviews were conducted with officials at the Ministry of Education and Higher Education (Director General of Education, Director of Secondary Education, Director of Primary Education), the President of the Center for Educational Research and Development, and general managers in private schools (widespread educational institutions representing various segments of Lebanese society have been selected) in addition to experts who participated in developing the curricula. The number of people contacted was (12), but one of them was unable to participate in the interview so the total number of participants became (11). This number is sufficient according to qualitative standards that focus on achieving data saturation due to the fact that the participants contributed to providing multiple perspectives reflecting the diversity of experiences and expertise ([See appendix 13 for more details](#)).

Objective of the interviews:

- Explore in-depth views on the human and material resources required to implement the developed curricula.
- Analyze the role of school leadership in the success of the implementation process.
- Identify the challenges facing schools and school administrations.
- Understand the Ministry's future plans, and support tools provided to schools.
- Specify the actual needs of schools at the administrative and educational levels in light of the developed curricula.

Type of questions: Semi-structured interviews were adopted to provide space for participants to express themselves freely with a frame of reference that ensures the achievement of the interview objectives. Such type allows for expanding the discussion on issues that were not previously anticipated or else to collect in-depth qualitative data. The questions focused on the following axes:

Evaluating the human and material resources required to implement the developed curricula through the following:

- Basic resources required to implement the curricula.
- Availability of educational equipment and tools in schools.
- Plans to secure the necessary human cadres and equipment.

The role of school leadership

- The role of school administration in the success of the developed curricula.

- The extent of school principals' readiness to support the implementation process.
- The need to reconsider the authority and responsibilities of principals.

Expected challenges

- The most prominent challenges facing school principals during curricula implementation.
- Support and follow-up plans to ensure successful implementation.

The role of technology and digital infrastructure

- The importance of technology in supporting developed curricula.
- The level of schools' technological readiness.
- The Ministry's plans to provide digital tools and their respective infrastructure.

Supporting students and the learning environment

- The Ministry's plans to support students including those with special needs.
- Ways to enhance a safe and healthy learning environment in schools.

Future vision

- The Ministry's vision for the future of education after implementing the developed curricula.
- The vision of those responsible for private schools regarding the future of education after implementing the developed curricula.
- The vision of experts who worked on the curricula for the future of education.
- The steps necessary to achieve comprehensive and sustainable development of schools.

The questions were designed in line with the objectives and areas of the research while ensuring their connection to the theoretical framework and the research problem.

These interviews contribute to building a knowledge base that provides realistic recommendations to school administrations with the aim of improving the chances of success in implementing the developed curricula.

The interviews were recorded after obtaining the participants' approval and after submitting an official letter from the President of the Center for Educational Research and Development to the Director General of Education. The data were transcribed and analyzed in programs dedicated to qualitative data.

Timing of the interviews

Upon obtaining the approval of the Director General of Education, the President of the Center for Educational Research and Development, and the experts to conduct the interviews and take various appointments, the interviews were conducted from Monday November 25, 2024 to Wednesday December 4, 2024.

3. Focus Groups

The tool used in this context is **focus groups** which is a research technique that aims to collect the opinions and positions of participants on a specific topic through guided group discussions. This tool chosen for focus groups is in the form of interviews for several reasons related to its characteristics and advantages in collecting qualitative data, especially in the field of "School Readiness and Effective Leadership in Light of Developed Curricula". The tool was implemented with secondary school students in public and private schools from various governorates in Lebanon ([See appendix 14 for more details](#)) after communicating with school administrations and obtaining their approval based on the approval of the Director General of Education to implement the research tools.

Why were focus groups chosen?

Group interaction

- **The interaction among focus group participants** can deepen understanding due to the fact that each group member may influence the positions of others creating interactive and rich discussions with different opinions.
- In this context, group participation leads to discovering how the school environment and leadership support jointly affect the learners' experience.

Expressing diverse opinions:

- Focus groups allow for the collection of **diverse opinions and feelings** from students that may not be expressed in other settings such as individual interviews. The presence of a group of participants increases the chances of obtaining diverse ideas and opinions about different aspects of the school environment.

Exploring individual and group differences:

- Focus groups provide the opportunity for students to **explore differences** in opinions and views about aspects such as curriculum, academic support, and content. Through group discussion, it is possible to determine the extent to which visions about "school readiness and effective leadership" are consistent.

Expanding the scope of qualitative data

- This tool provides **a greater scope for collecting abundant qualitative data** (such as personal opinions, feelings, and insights) compared to traditional interviews. Furthermore, the participants can freely express their experiences and interactions regarding the curriculum and academic support.

Facilitating discussions of difficult issues

- It may be easier for learners to discuss **certain issues** in an informal setting on topics such as safety at school or academic challenges when they are part of a group conducting a discussion.

Questions for learners in focus groups

School environment

These questions aim to **identify the feelings and daily experiences** that students go through within the school. Accordingly, this paves the way to examine the **school climate** and how it affects the students' psychological and physical well-being.

- For example, a question such as “Do you feel safe and welcome at school?” helps to assess the **emotional aspect** of the school environment.

Academic support

Questions related to academic resources highlight **learners' educational needs** and reveal whether current resources are able to adequately support learners academically.

- Inquiring about “Programs that help you succeed academically” allows us to **identify gaps in academic support** and the effectiveness of available programs.

Skills and content

These questions aim to **develop transversal skills** such as communication, teamwork and time management. They constitute an essential part while **preparing students for their future**. They also help to measure **the relevance of the curriculum** to the demands of professional and personal life after graduation.

- A question such as “Do you feel that the current curriculum prepares you well for life after high school?” provides a **realistic comparison** between the content of the curriculum and learners' future goals.

Future aspirations

Questions related to future aspirations allow learners to **express their ideas and visions** about the curricula they would like to follow or the topics they perceive as necessary.

- The question “What if you had the opportunity to express your opinion on designing a new school subject?” opens the door to creative thinking and contributes to **analyzing students' priorities** about the topics they would like to learn about.

Timing of conducting focus groups

After obtaining the approval of the Director General of Education to conduct interviews and taking various appointments from the participating schools and especially the learners in the focus groups, (16) focus groups were conducted with students from secondary classes in various sectors of pre-university academic education and from all Lebanese governorates during the period extending

from Thursday December 5, 2024 to Monday December 23, 2024. The period was long because it depended on the availability of multiple groups as well as communication and internet conditions that sometimes did not allow for conducting focus groups smoothly and as expected.

Focus groups responses were recorded after obtaining the participants' consents, and upon submitting an official letter from the President of the Center for Educational Research and Development to the Director General of Education and the approval of school principals and stakeholders. The data was then transcribed and analyzed.

The importance of focus groups for this study is that they provide an open platform for group interaction and in-depth exploration of ideas and experiences which pave the way for collecting comprehensive qualitative data on **school readiness and effective leadership** in light of the developed curricula.

It is worth noting that all tools have been accurately linked to take mostly advantage of answering the research questions and raising basic practical recommendations on school readiness and effective leadership in Lebanon.

Verifying the validity of the tools: Testing the validity and reliability of the tools

1. Testing the validity of the tools

The experts preparing the study developed the items of the questionnaires, interviews and focus groups based on the initial drafts that were prepared earlier. Then, the necessary modifications were made to these tools to ensure their consistency with the study objectives and research questions. The goal is to make them clearer and more accurate in line with the context and needs of the study, thus ensuring the apparent validity of these tools (arbitration).

2. Testing the reliability of the tools

To ensure the reliability of the tools and their ability to produce consistent results when used repeatedly, a pilot study was conducted on a small sample of ten schools ([See appendix 15 for more details](#)) on November 14 and 15, 2024. The aim of this study was to ensure that the tools do not produce variable or confusing results when applied to similar samples.

3. Analysis of the reliability of the questionnaires using Cronbach's Alpha

The Cronbach's Alpha scale was used to assess the internal consistency of questionnaires or measurement tools due to the fact that it helps measure the extent of the interrelationship of items measuring the same concept or dimension. The results showed a value of (**Cronbach's Alpha = 0.93 ~ 1**), indicating that the tools have very high internal reliability, and are therefore considered suitable for use in the study.

It is worth noting that the required modifications were made based on the results of the pilot study to improve the clarity of the tools and ensure the accuracy of the measurements taken.

Data Analysis

The data collected using different tools (questionnaires, interviews, focus groups) were analyzed through quantitative and qualitative analysis techniques as follows:

1. Quantitative Analysis

Statistical software such as (SPSS) was used to analyze the quantitative data extracted from the questionnaires. The analysis process included distributing the extracted data in tables and graphs to represent the main patterns and trends. The results were presented in text form by the research experts who manually analyzed the data to support answering the research questions and extract relevant recommendations.

2. Qualitative Analysis

For the qualitative data collected from interviews and focus groups, the texts were analyzed using ATLAS.ti and thematic analysis. At this stage, the data were classified into main themes and subcategories according to the research objectives of the study. Clear classification criteria were used to identify common patterns and topics among the participants, such as school readiness, leadership practices, challenges, and future aspirations. The analysis was conducted manually by the research experts to ensure the accuracy of data classification and the extraction of recommendations (See [appendix 16](#), [appendix 17](#) and [appendix 18](#) for more detail).

3. Mixed Methods Analysis

It greatly enhanced the accuracy and comprehensiveness of the research results. To enhance the analysis process and ensure the effective integration of quantitative and qualitative data, the **Mixed Methods Analysis** was adopted in this study. This approach facilitated the combination of quantitative and qualitative tools in a single analysis to achieve more comprehensive and reliable results.

Adopting **mixed analysis** opened the way for a comprehensive study that combines the advantages of quantitative data with the accuracy of qualitative data resulting in deeply supported results and worthwhile interpretations. This advanced approach provides a comprehensive and reliable view of the phenomena studied and helps draw a clear picture of the available areas leading to improvement and development in the educational system.

Note: Due to the extensive volume of results derived from the four questionnaires, the analysis will be included in the appendices to avoid lengthening the main text. ([See appendix 19 for more details](#)).

Limitations and Challenges

- **Time constraints:** Due to time constraints, the data were collected over a relatively short period of time. This may affect the comprehensiveness of the sample. The study was also affected by the difficult security and military conditions that Lebanon experienced during the selection of the sample schools. During this period, it was necessary to ensure an accurately represented sample according to the standards of CERD, Think Tank experts, and the Natafa3al Consortium, as well as secure the inclusion of all sectors and governorates. These conditions also affected the distribution of questionnaires and the receipt of responses which took longer than expected, thus affecting the overall timeline of the study. The dates of several interviews were delayed due to the difficulty of coordinating with officials to set dates at tight times, but these challenges were flexibly overcome by the research experts to ensure the representativity and reliability of the sample.
- **Partial responses:** Despite the distribution of questionnaires to a wide sample of schools, the response rate was uneven which may affect the representation of the sample in some regions. Security challenges also affected the response of schools in some areas. However, this was overcome by intensifying communications with the target groups to obtain the largest possible representation of responses.
- **Language challenges:** Given the linguistic diversity in Lebanon (Arabic, French, and English), it was necessary to use Arabic in the data collection tools to ensure full understanding by all participants. Therefore, the responses were in Arabic which necessitated their translation into English in the final stage of the report. The translation took longer, but each part of the study was translated upon its completion and eventually these parts were linked together in a consistent manner.
- **Field conditions:** The researchers faced some field challenges in reaching schools located in areas that were subjected to aggression or whose residents were displaced. The volatile and accelerating social, political and security conditions also affected the organization of interview dates and their implementation on time.
- **Time challenges specific to the study:** The biggest challenge was the limited time to conduct a comparative descriptive and analytical study between the public and private education sectors, in addition to comparing data across governorates. Despite the difficult circumstances, the efforts were intensified to ensure that the results extracted from questionnaires, interviews and focus groups were linked together. This task also included the preparation of statistical tables and graphs in order to reach practical recommendations related to the study's title, objective and problem.
- **Security and military conditions:** The prevailing security and military conditions in Lebanon also affected the research experts as they faced difficulty in moving and communicating with some of the stakeholders in light of the tensions. However, these challenges were overcome through **continuous coordination** and teamwork to ensure the completion of the study to the maximum.

Ethical Controls

In this research, all ethical controls related to social and educational research were adhered to:

- **Maintaining data confidentiality:** Complete confidentiality of the information collected was ensured taking into consideration that all data was stored in a secure environment.
- **Informed consent:** It was ensured that all participants obtained informed consent before participating in the research. They have all been informed that: their participation was voluntary, their right was reserved to withdraw at any time, and their consent was taken to record the dialogues.
- **Transparency in data use:** The purpose of the research was explained to the participants indicating that the data would be used only for purely academic and scientific purposes.

Field procedures

To effectively implement this study, the following field procedures were followed:

- **Preparation of tools:** Questionnaires, interviews, and focus groups were developed based on the literature review, the specific objectives of the research, and the research questions.
- **Distribution and Implementation:** The tools were distributed via email to schools and through other means of communication (google forms links), and delivered in person at schools. Further assistance included ensuring that guidance messages were sent to participants on how to fill out the questionnaires and participate in the interviews and focus groups.
- **Follow-up:** Reminder messages were sent to participants who did not complete the questionnaires by the specified dates to secure the highest possible response rate. All participants were contacted personally by those in charge of this task at the Center for Educational Research and Development.
- **Organization:** Interviews and focus groups were organized at flexible times that fit the schedules of the study participants.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

This chapter addresses the conclusions and recommendations drawn from the study on school readiness and effective leadership in light of the updated curricula in Lebanon. The study aimed to evaluate the extent to which schools are prepared to implement these curricula and to assess the effectiveness of school leadership in facilitating educational change, given the challenges faced by these educational institutions in achieving quality and innovation. The study highlighted readiness aspects in terms of human and material resources, as well as the ability of school leadership to adapt to developments and motivate educational teams to meet future aspirations. Based on these findings, a set of recommendations is presented to enhance readiness, effective leadership, and support mechanisms to achieve the vision of the Lebanese national framework for pre-university general education curricula.

Section One: Conclusions

1. Conclusions Related to Demographic Data

1.1. Age

Approximately half of the principals in the public sector (48.3%) fall within the age group of 40-50, followed by the 50-60 age group, with a complete absence of younger age groups. Supervisors in the public sector also exhibit similar age distributions as principals. In contrast, the free and non-free private sectors show a higher representation of the 50-60 age group, as well as representation of those aged over 60 and younger age groups.

Overall, this distribution indicates a greater tendency for older principals across all sectors, with a noticeable absence of younger principals in the public sector.

For coordinators, the 30-40 age group is more prevalent compared to principals and supervisors (35.3%), and this age group is most common among teachers (43.6%).

1.2. Gender

The results highlight a pivotal role for females in the education sector, with clear dominance in most educational sectors and school leadership in the public sector. The private sector shows a relative balance between genders among school principals, while the UNRWA sector exhibits absolute female dominance. The overall distribution reflects a culture of encouraging females in formal education, with balance observed in some private sectors.

1.3. Employment Status

Approximately 40% of public school principals are in acting positions, indicating that they have not undergone structured preparation courses in educational and school administration. More than two-thirds of public-sector teachers are on contract (70.5%) under various designations, which is striking and requires urgent solutions, especially since this percentage has not undergone structured preparation courses in education.

1.4. Educational Qualifications

Based on the analysis of the distribution of academic qualifications among principals, supervisors, coordinators, and teachers across various sectors, it can be concluded that most principals and supervisors in public education hold at least a bachelor's degree, which predominates in this sector. Conversely, the non-free private sector shows a higher representation of advanced degree holders (Master's) compared to public education, which remains dominated by bachelor's degree holders. In the free private education sector, lower-than-university-level qualifications, such as the baccalaureate, are prevalent, reflecting a relative weakness in higher competencies.

Overall, there is a noticeable disparity in the distribution of academic qualifications across different regions, with public education showing relative balance in academic qualifications and a slight inclination towards enhancing higher competencies. In contrast, free private education suffers from a significant lack of advanced degree holders.

1.5. Years of Experience in Teaching

The public sector relies heavily on staff with extensive experience, with the majority of principals having more than 25 years of experience. Conversely, the free private sector features a prominent category of principals with extensive experience (over 25 years) but also includes a notable representation of principals with short experience (0-5 years). The non-free private sector displays a balanced distribution across different experience levels.

Analysis of the distribution of principals, supervisors, and coordinators across various regions shows that long experience dominates in many areas, particularly in the public sector. Meanwhile, short and medium experience levels represent a more balanced distribution in some private sector areas. Results indicate significant variation in experience distribution between sectors and governorates.

1.6. Years of Administrative Experience (for Principals)/ Supervision (for Supervisors)

In the public sector, recent administrative experience (0-10 years) predominates, accounting for a significant percentage (73.5%), with a weak representation of long-term experience. Comparing this to the results showing that many principals with limited administrative experience have not undergone structured training for school management reveals a notable gap. In the free private sector, the majority of principals have over 25 years of experience (43.3%). The non-free private sector shows a relative balance, focusing on both recent and long-term experience (24.5%). The UNRWA sector emphasizes principals with experience ranging from 21-25 years (50%). Regarding supervisors, the public sector relies heavily on newer staff, while the free and non-free private sectors exhibit a wider variety, with Beirut particularly favoring those with extensive experience.

2. Conclusions on Human Resources in Schools in Lebanon

2.1. Absence of Psychologists

The public sector suffers from an almost complete lack of psychologists across all governorates, with most public schools (e.g., 100% in Beirut) lacking a psychologist. Similarly, the free private sector faces a comparable shortage, with only a few exceptions. In contrast, the non-free private sector shows relative progress in this area but remains insufficient.

2.2. Shortage of Social Workers and Educational Counselors

There is a significant shortage of social and educational staff, often accompanied by the absence of psychologists. This deficiency leads to a lack of psychological, social, and educational support for students, negatively affecting their academic performance and behavior.

2.3. Shortage of Administrative Staff

There is a severe shortage of administrative staff (excluding principals, supervisors, and IT staff) in the public sector. A large proportion of public schools across governorates lack administrative staff (e.g., 62.5% in Beirut, 72.7% in Mount Lebanon, and 90% in Akkar). The situation is similar in the free private sector, where many schools also lack administrative personnel. In contrast, the non-free private sector offers more diversity in administrative staff, reflecting a greater investment in this area.

2.4. Shortage of Supervisors and Coordinators

The public sector suffers from a lack of supervisors and coordinators who do not engage in teaching, affecting administrative efficiency. Often, the general supervisor is tasked with multiple administrative duties in public schools, hindering their effective performance.

2.5. Total Staff in Schools

There is a notable concentration of staff in public sectors in low-population-density areas such as Akkar and Bekaa.

2.6. Laboratory Technicians and Librarians

Most schools, particularly in the public sector and rural areas, suffer from a significant shortage of laboratory technicians and librarians, impacting the quality of education in scientific and technical subjects.

2.7. Guards and Support Staff

The public sector lacks sufficient numbers of guards and support staff, affecting school security and administrative quality. In contrast, the non-free private sector shows a better balance in providing guards and support staff.

2.8. Disparities Between Sectors

The non-free private sector appears more prepared in terms of providing administrative, social, and psychological staff compared to the public and free private sectors, leading to gaps in the quality of educational and administrative services.

3. Conclusions Based on Analysis of the Second Research Question Results: What Are the Main Differences in Leadership Competencies Required for the Effective Implementation of the Updated Curricula Between Public and Private Schools?

3.1. Human Resources Management Planning

The process of human resources management planning involves determining the appropriate number of staff in the school and distributing them across various functions based on specific qualifications and a given timeframe to achieve the school's goals. This process allows for identifying staff, assessing their needs, optimizing human resource utilization, and preparing for shortages or surpluses. It also relies on evaluating learners' statuses, competencies, and the school's needs to recruit new staff in response to educational and technological changes.

Respondents' opinions in this area agree that UNRWA and the non-free private sector excel in strategic planning. However, the public and free private sectors need to improve strategic planning competencies among school principals in some peripheral governorates such as the North, South, and Bekaa, which represent a shared challenge.

3.2. Participative Leadership

Regarding participative leadership, the results showed that school principals in the free and non-free private sectors perform best in involving the team in planning resource management, task distribution, and priority setting. Public school principals, particularly in low-performing governorates, need to strengthen their participative leadership competencies. This can be achieved through continuous training programs, monitoring and evaluation mechanisms to enhance skills, and increasing team involvement levels.

According to the surveyed principals, the public sector achieves medium to high rates of team participation in resource management planning, task distribution, and priority setting. However, there are disparities between governorates, with notable declines in areas such as Akkar and Bekaa.

Based on the respondents' answers, participative leadership is the most prevalent style in most educational sectors, despite some regional variations. This highlights the need to activate and strengthen this competency among school principals by offering sustainable solutions to improve their performance and develop participative leadership approaches to ensure better human resource management.

3.3. Effectiveness of Administration in Guiding and Supporting the Educational Team

Significant regional disparities were observed in the public education sector regarding administrative effectiveness in guiding and supporting the educational team. The free private sector demonstrated consistent and positive performance, while the non-free private sector exhibited high efficiency in most governorates. The South and Beirut governorates emerged as positive models of effective school administration in supporting and guiding the educational team. Conversely, schools in Akkar and Baalbek-Hermel governorates highlighted the need for additional efforts to enhance administrative effectiveness in this area.

3.4. Adopted Leadership Model

There is consensus among respondents across all four surveys that participative leadership is the most prevalent model in most sectors and governorates. The non-free private sector and the public sector showed high implementation rates of participative leadership in their schools, with notable excellence in governorates such as Beirut, the South, and Nabatieh. However, significant disparities in participative leadership rates exist among governorates, with Beirut and the South recording high rates, while governorates such as Akkar and Baalbek-Hermel reported lower rates.

Individual leadership is less common compared to participative leadership across all governorates and sectors, but it appears at noticeable rates in some areas, such as Akkar and Baalbek-Hermel.

These results emphasize the need to examine the factors influencing this variation among governorates, to develop suitable strategies, and to provide training programs for principals to improve their competencies in adopting effective leadership models. Enhancing participative leadership can significantly improve school performance.

While there is a generally good level of participation in most sectors, the private sector outperforms the public sector, highlighting the need to enhance participation in low-performing areas. Opportunities should be provided to improve performance in regions facing challenges in team involvement, leveraging successful sector models to enhance planning mechanisms.

3.5. Leadership Competencies of the Sampled School Principals

Change management emerges as a significant factor in enhancing the flexibility of the educational system, with the public sector leading, followed by the non-free private sector. The free private sector and UNRWA show a need for additional support to improve their performance in this area. The disparities in performance across governorates highlight the need to improve resource allocation, with particular attention to rural areas.

Regarding **problem-solving skills**, public sector school principals demonstrated exceptional performance in enhancing problem-solving capabilities across governorates. The non-free private sector showed high rates in some areas but faces challenges in rural regions. Conversely, the participation of principals in the free private sector and UNRWA is very limited, necessitating further support and training to develop problem-solving skills and enhance their role in this domain.

In terms of **motivation and support for the teaching staff**, the public sector outperformed others in leading motivational efforts and supporting the teaching staff across governorates, despite some variations in performance. The non-free private sector ranked second with good performance in certain governorates but faces challenges in rural areas. Free private schools and UNRWA require additional support to strengthen their role in this regard.

In **planning and organization**, the public sector maintained a leading position in most governorates, while the non-free private sector showed relative excellence due to its available resources. On the other hand, the free private sector suffers from constraints negatively impacting its capacity in this area. The findings indicate a clear disparity in planning and organizational capabilities among school principals across governorates. The public sector maintains its lead in most areas except Mount Lebanon. This underscores the need to enhance planning and organizational capacities in other sectors, particularly in Baalbek-Hermel, while areas like Beirut and Mount Lebanon exhibit notable competition among various sectors.

Regarding **effective communication**, the level of effective communication varies between governorates, reflecting a gap between urban and rural areas in terms of resources and supportive infrastructure. This gap underscores the importance of developing communication skills among school principals, as leading change requires communication competencies that engage the team in school planning, decision-making, and adopting development or change processes.

Core leadership competencies in school administration, such as problem-solving, effective communication, motivation and support, planning and organization, and change management, vary among principals, supervisors, teachers, and coordinators based on educational sectors and regions. Public sector principals rank highest in most of these competencies according to respondent feedback, while principals in other sectors face challenges requiring additional support to develop their leadership skills and ensure the necessary resources for improved performance. It is evident that the public and non-free private sectors, in particular, face challenges in enhancing the leadership skills of principals working in rural areas.

Regarding **Innovation in Educational Practices**, School leadership plays a pivotal role in encouraging innovation and fostering a supportive educational environment. The results indicate that encouraging innovation is an essential component of improving both educational and administrative performance. Schools in the free private sector have excelled in supporting innovation across governorates. Similarly, the non-free private sector and UNRWA have demonstrated a strong commitment to fostering and encouraging innovation. However, there is a

significant need to develop innovation capacity in public schools, especially in Beirut, the North, the Bekaa, and Baalbek-Hermel, possibly due to the absence of a unified policy to address the lack of support for innovation in some governorates. This underscores the necessity of extending successful support and innovation programs from the private sector to public schools. This can be achieved by enhancing the exchange of successful experiences between high-performing and low-performing schools to improve principal performance. Additionally, effective mechanisms for monitoring and evaluation should be implemented to ensure the support of innovation in schools located in rural areas.

Change management is a fundamental factor in enhancing the flexibility of the educational system. The public sector has shown notable performance in this area, reflecting an effective response to challenges and the need for change. Conversely, the non-free private sector has made clear investments in change management, while the free private sector and UNRWA institutions require more support to improve their performance. The disparities in views across governorates highlight the importance of promoting and activating a culture of change management by improving resource allocation, meeting diverse needs, and focusing on rural areas to ensure inclusive development.

As for **Motivating and Supporting the Educational Staff**, the public sector stands out for its high performance in creating a safe and stimulating learning environment, surpassing other sectors in leading efforts to motivate and support educational staff across all governorates, despite noticeable variations in performance. It is followed by the non-free private sector, which achieves relatively positive results but remains below expectations in rural areas. Free private schools and UNRWA institutions require additional support and training to strengthen their role in this domain and achieve better outcomes.

Regarding Follow-Up and Evaluation, Effective management is a cornerstone of improving education quality and outcomes through a flexible system that monitors teacher performance and works on their comprehensive and continuous professional development. This includes supervising their performance, identifying their needs, and helping them develop their skills. The study results show a commitment among free private school principals to classroom visits, with high levels of follow-up and evaluation recorded across all governorates, followed by the non-free private sector, and then the public sector, which showed variations between governorates. Coastal governorates demonstrated more commitment compared to rural ones. This disparity underscores the need to strengthen follow-up and evaluation mechanisms in rural schools to improve the quality of education.

The study reveals high rates of positive responses ("often" and "always") regarding providing feedback and recommendations to teachers after evaluation, reflecting good performance by educational administrations in the public, free private, and non-free private sectors.

Evaluation is a central activity in school life, influencing all its aspects. It requires the principal to assess all dimensions of the educational/learning process and take necessary actions to improve education quality and school effectiveness. Key benefits of evaluation include enhancing student achievement and developing teacher efficiency when properly implemented. Major areas of school evaluation include assessing the quality of the educational process, teacher and leadership competence, strategic planning quality, and the effectiveness of communication between the administration and the educational system.

Evaluation is part of the school culture and its capacity to develop and support innovation. It contributes to improving the institutional climate and fostering effective human relationships by promoting a culture of self-evaluation (performance assessment among learners, principals, teachers, and administrators).

Regarding **Supporting Struggling Students**, performance varies between sectors in supporting struggling students. The non-free private sector and UNRWA institutions excel significantly in providing support to these students. Conversely, the public sector faces significant challenges in this area, particularly in certain governorates such as Akkar and Mount Lebanon. Nevertheless, principals in the South and Bekaa regions demonstrate outstanding performance in implementing support programs for struggling students, despite significant disparities between sectors and governorates.

3.6. School Principals Commitment to Professional Development Programs for Improving Leadership and Administrative Competencies

Non-free private sector principals stand out for their consistent commitment to attending training courses to develop their professional competencies. The highest commitment rates were recorded in Beirut (88.9%), Akkar (83.3%), Hermel (80%), the South (71.4%), and Nabatieh (66.7%). Principals in Beirut and the South excelled with a 100% commitment rate in the free private sector.

In the public sector, commitment to consistently attending training courses has declined, with the highest rates recorded in Mount Lebanon excluding suburbs (61.1%), followed by Nabatieh (50%) and the South (46.7%). Conversely, UNRWA school principals demonstrated the highest consistent commitment to professional development, reaching 100% in Mount Lebanon and the North. However, commitment rates in the public sector were low in Beirut (25%), the North (28.6%), and Akkar (27.3%), indicating the absence of effective mechanisms for monitoring and motivating participation in training courses.

The non-free private sector recorded high commitment rates for principals attending training courses in most governorates, with the lowest rate in the Bekaa (44.4%). This performance reflects institutional awareness of the importance of continuous professional development training to keep pace with modern developments and its direct impact on improving education quality.

The public and free private sectors exhibit varying commitment levels across governorates, while UNRWA schools consistently demonstrate high commitment in all governorates.

These findings call for decision-makers to develop continuous and mandatory training programs for school principals, as professional development contributes to enhancing the learning environment, which positively impacts students' academic performance, personal and social skills, leading to achieving quality education.

3.7. Areas for School Principals to Develop to Improve Administrative and Leadership Performance

Administration is a continuous social process aimed at achieving goals efficiently and effectively by effectively utilizing available resources through planning, decision-making, organizing, coordinating, problem-solving, directing, supervising, and monitoring. These processes are interconnected and influence each other.

In this context, the study highlighted the need to improve decision-making processes in many schools, either separately or in conjunction with strategic planning. This indicates the need for principals to enhance their competencies in administrative and educational decision-making, as well as the ability to develop strategic plans and communicate with stakeholders. However, innovation in educational practices remains a lower priority and is not sufficiently integrated with other factors like strategic planning or decision-making, showing a need for more focus on fostering innovation in educational environments.

The study also pointed out the necessity of developing **strategic planning competencies** among public school principals in particular. This reflects an institutional awareness of the importance of sustainability and the role of strategic planning in improving educational/learning processes and school performance, contributing to effective school management. Here, the need arises to study factors impeding the application of these competencies, which have led to variations in results between governorates, in addition to developing training programs to increase principals' efficiency.

The study found that the **public sector requires developing leadership competencies for school principals** across various areas, with the highest responses in "**innovation in educational practices**," "**strategic planning**," and "**engaging with stakeholders**." The non-free private sector showed noticeable responses in most areas, particularly in "innovation in educational practices" and "strategic planning." Meanwhile, free private schools ranked lowest in most areas, with the key focus areas being "innovation in educational practices" and "strategic planning." UNRWA schools prioritized "partnership building," "innovation in educational practices," and "engaging with stakeholders" as the most important areas.

3.8. Core Leadership Competencies in School Administration

Regarding **core leadership competencies**, survey results indicate that **public sector principals excel in "motivating and supporting educational staff" and "planning and organizing."** Meanwhile, principals of both **free and non-free private schools are strong in "problem-solving" and "effective communication,"** which are essential for creating a safe and stimulating learning environment. While public sector principals lead in planning and organizing, there is a need to **develop and enhance innovation in educational practices within their schools.** Additionally, both free and non-free private sectors and UNRWA demonstrate a strong commitment to motivating and supporting educational staff in fostering innovation in educational practices. Conversely, public school principals need further development in these competencies in certain governorates.

Problem-solving skills are notably strong across both public and non-free private sectors, being a critical competency emphasized throughout all governorates. Public school leaders rank first in "problem-solving," "effective communication," and "motivating and supporting educational staff," followed by the non-free private sector in terms of frequency in these areas.

Strategic planning remains a consistent competency across all sectors and governorates. Effective communication is a key element in enhancing the educational process in all sectors, where it holds significant importance among principals, supervisors, teachers, and administrators who responded to the surveys, despite its underutilization in some rural schools. Additionally, "motivating and supporting educational staff," which is crucial for fostering a positive learning environment, is emphasized in both public and non-free private sectors, while being less prevalent in the free private sector and UNRWA. The importance of planning and organizing remains a fundamental and essential element for effective management across all sectors, with a better application observed in the public sector compared to other sectors.

3.9. Open-ended Question Directed to Principals Regarding Motivating Teachers to Embrace Development or Change to Achieve Educational Quality

Principals focused on ensuring teachers receive their rights first and foremost, including ensuring a dignified standard of living with social security, a fair income, and health insurance. They emphasized the importance of continuous material and moral support, with fairness and encouragement being key factors, as job stability is essential for motivation and achieving educational quality. They also highlighted the need to convince teachers that development leads to success and aligns with students' evolving mentalities and changing interests according to new generations.

Suggestions included organizing workshops for teachers to showcase pioneering educational experiences and highlight the importance of development or change, shedding light

on its short- and long-term benefits across various aspects, and its positive impact on student motivation and engagement in the learning process.

Principals' responses collectively reflected a high level of professionalism, addressing challenges that teachers may face in adapting to any change or development. These included:

- 1) Involving teachers in formulating an inspiring and clear vision for the school to build a better future for students.
- 2) Strengthening their sense of importance in achieving this vision.
- 3) Organizing regular meetings to discuss developments and listen to their opinions.
- 4) Utilizing communication applications to disseminate information and updates.
- 5) Providing continuous opportunities for professional training and encouraging participation in educational conferences.
- 6) Recognizing teachers' achievements and offering symbolic rewards and incentives.
- 7) Ensuring a positive and motivating work environment and providing necessary resources to implement new ideas.
- 8) Encouraging collaboration among teachers and exchanging experiences.
- 9) Involving teachers in decision-making processes related to development.
- 10) Providing training and support: offering workshops and continuous training sessions.
- 11) Recognition and motivation: granting rewards and certificates of appreciation for their efforts.
- 12) Linking development to its positive impact: clarifying how changes improve education and student outcomes.
- 13) Building a participatory culture to enhance collaboration and collective learning among teachers.
- 14) Ensuring the availability of tools necessary to implement changes.
- 15) Listening to teachers' feedback and addressing challenges they face.
- 16) Sharing teachers' experiences and successes to encourage trial and innovation.

In conclusion, responses indicate that principals recognize the importance of involving teachers in the planning process and providing continuous support to overcome the challenges accompanying any change. They emphasize the importance of allowing teachers to participate in decision-making processes concerning curriculum development and teaching methods, fostering a sense of responsibility and readiness to implement changes. Additionally, they highlighted the necessity of appreciating teachers' efforts to enhance their motivation, suggesting that motivating teachers requires addressing their material, social, and psychological needs through both material and moral incentives.

Opinions also highlighted the need to strengthen teachers' competencies in utilizing modern technologies and innovative teaching strategies. This requires continuous training for the educational staff to acquire the necessary skills to keep up with these developments, whether in

curricula or modern technology, through ongoing training programs and interactive workshops aimed at enhancing their abilities in this area.

Responses also emphasized that the success of any development process requires addressing teachers' concerns and identifying their needs through continuous monitoring and evaluation, clarifying the importance of change, helping teachers overcome difficulties, and developing their professional skills. This involves encouraging teachers to improve their performance through necessary support and training.

Planning begins with identifying tasks and activities needed to achieve goals and ends with tools for assessing achievements. This encompasses tasks such as planning, supervision, and activating communication channels between administrative and educational bodies, including parents and the local community. A key trait for educational leaders is the ability to solve problems and take initiative to improve and develop the situation.

4. Conclusions Related to the Third Research Question on the Human and Material Factors Affecting the Preparedness of Public Schools to Implement Developed Curricula Compared to Private Schools

4.1. Part One of Research Question Three: Human Factors

After surveying principals, supervisors, coordinators, and teachers on the impact of human factors on a school's readiness to implement developed curricula, the data revealed disparities in how these factors affect public schools compared to private ones. Public schools showed a deficiency in training and technical support for teachers, especially in peripheral regions such as the North, Akkar, and Baalbek-Hermel, where the categories identifying training and technical support as "in need of development" or "completely inadequate" were the most prevalent. In contrast, private sectors, whether free or non-free, performed significantly better, with high ratings of "good" and "very good," particularly in Beirut and Mount Lebanon (both divisions).

Additionally, public schools struggle with teachers' proficiency in implementing support programs for struggling students and emotional-social support, whereas the private sector, especially non-free private schools, shows more positive outcomes in this area.

On the material side, the results indicate that public schools face significant challenges in maintaining and updating electronic devices, with categories "needing development" and "completely inadequate" leading. The private sector, especially in Beirut and Mount Lebanon, demonstrates a clear advantage in this regard. Furthermore, the public sector suffers from a lack of dedicated technical support teams to handle technology, widening the gap between public and private schools. Urgent solutions for the public sector include enhancing training, providing

technical support teams, and updating infrastructure to better prepare for implementing developed curricula.

Overall, the results indicate weak readiness in human factors within the public sector, requiring serious intervention to build capacity, whereas the private sector is closer to readiness but still not fully equipped.

To cross-reference with the survey results regarding the third research question about the impact of human factors on schools' readiness to implement developed curricula, two open-ended questions were posed to teachers and supervisors regarding their necessary technological training needs. It was evident that human factors affecting public schools' readiness are primarily linked to teachers' and supervisors' ability to handle technology and meet training requirements. Responses indicated a significant shortage of technological skills among public school teachers, with urgent needs for training in the use of educational devices, applications, digital content development, and modern technologies such as artificial intelligence and data analysis. Peripheral regions, such as Akkar, the North, and Baalbek-Hermel, suffer more from a lack of training and technical support compared to other regions.

Supervisors also highlighted the need for training courses in information technology, use of online platforms, and administrative technologies, such as managing activities and schedules. They requested specialized courses in artificial intelligence and distance learning tools, reflecting a general deficiency in technical and professional preparation.

The results from the open-ended questions indicate that these training needs are not supplementary but foundational, essential for empowering school staff to meet the demands of curricula heavily reliant on technology. Without these trainings, public schools are unable to match the readiness of the private sector, which enjoys a higher level of preparedness.

4.2. Part Two of Research Question Three: Material Factors

Conclusions Related to the Availability of Technological Devices in Classrooms (LCD, Active Board, Computer)

According to the responses from the four surveys, public schools in Lebanon face a significant shortage of **display devices (LCD)**, with only 46.9% of the first cycle being equipped. UNRWA schools face greater challenges, with 66.7% lacking these devices. In contrast, the non-free private sector has a better level of equipment, with rates exceeding 60% in some areas. Geographically, rural areas such as Akkar and Baalbek-Hermel show the lowest rates, reflecting the impact of poverty and geographical remoteness on educational quality. Urban areas like Beirut and Mount Lebanon have a better situation in terms of display devices, highlighting the gap between regions. Additionally, the severe shortage of display devices in UNRWA schools directly affects the quality of education in these schools.

Regarding **interactive boards (Active Boards)**, approximately 88% of public schools either lack them or need them to be equipped. The private free sector faces a similar shortage, while UNRWA schools show a complete absence of this technology. Geographically, major urban areas like Beirut and Mount Lebanon suffer from high shortage rates of 79.7% and 65.8%, respectively. In rural and remote areas like Akkar and Baalbek-Hermel, the absence of interactive boards reaches 72.5% and 63.6%, showing a clear geographical disparity affecting educational quality. Additionally, the lack of training programs for teachers on using interactive boards remains one of the main obstacles, reducing students' benefit from these technologies even when available.

Regarding **computers**, all educational cycles suffer from a noticeable shortage, with variations in availability between different sectors. In the first cycle, the public sector shows lower equipment rates compared to the non-free private sector. In the third cycle and secondary level, the gap remains between sectors. Geographically, the issue is more severe in rural areas like Akkar and Baalbek-Hermel, where there is a severe lack of computers, while Beirut and Mount Lebanon show relatively better rates. This shortage significantly affects teachers' ability to provide effective education, especially in subjects that require practical applications based on technology.

The disparities between sectors are clear in the shortage of technological devices in the public sector and UNRWA schools, contributing to a widening educational gap compared to the non-free private sector, which has better equipment levels, although still facing significant challenges in rural and remote areas. On infrastructure and training, schools lack continuous maintenance of technological devices, weakening their effectiveness and leading to rapid deterioration in the quality of these devices. Additionally, schools suffer from a lack of training programs for teachers and administrators on using available devices, reducing the positive impact of these technologies even when they are accessible. These factors collectively contribute to weakening the educational process and limiting students' opportunities for technology-based learning.

Conclusions Related to the Availability of Facilities (Laboratories, Libraries, Playgrounds, Lecture Halls)

The results related to **laboratories** in Lebanese schools across various sectors and regions show significant infrastructure challenges and resource availability. In the public sector, there is a clear disparity in the quality and availability of laboratories between regions. Beirut shows that approximately 50% of laboratories need improvements, with 11.1% deemed unusable. In Mount Lebanon (suburbs), half of the schools lack laboratories, while other regions have lower rates. The North and Bekaa face severe shortages, with 42.9% of schools in the North and 38.5% in the Bekaa lacking laboratories. In the private sector, the situation varies between free and non-free schools, with most free private schools entirely lacking laboratories, especially in Beirut. Conversely,

regions such as Mount Lebanon and the North show relatively better rates in non-free private schools.

Regarding **libraries**, there are significant disparities between Lebanese regions. In Beirut, public sector libraries show higher relative rates of equipment at 37.5%, while free private sector rates reach 42.9%. In Mount Lebanon (suburbs), public sector libraries suffer significantly, with 54.5% requiring substantial improvements. Rural areas like Akkar and Baalbek-Hermel experience extremely poor library facilities, with most libraries being inadequately equipped or requiring significant upgrades. In the South, Bekaa, and North, well-equipped libraries do not exceed 31-33%, highlighting a significant need for improvement.

Regarding **playgrounds**, the public sector in Beirut suffers a severe shortage, with only 12.5% of playgrounds being adequately equipped. However, rural areas such as the South and Akkar show better rates, ranging between 46.7% and 50%, respectively. In Mount Lebanon (suburbs), 72.7% of playgrounds require major improvements. In the free private sector, the South has ideal playgrounds at 100%, while Beirut needs significant improvements. For non-free private schools, relatively better equipment levels are seen, especially in Beirut at 66.7% and Mount Lebanon at 60%. UNRWA schools have good playground availability in Mount Lebanon and the North, with some minor improvements needed in the South.

Regarding **lecture halls**, the public sector in the North faces a severe shortage, with 77.1% of schools lacking halls, followed by Akkar at 65% and Bekaa at 61.5%. Beirut shows relatively better rates, with only 25% lacking halls, with 37.5% requiring significant improvements. The South shows a balanced situation, with 40% lacking halls and 33.3% needing minor improvements. In the free private sector, lecture halls are entirely absent in Beirut and the South at 100%, while Akkar and Mount Lebanon (suburbs) show relatively better conditions, with a balance between equipped halls and those needing improvements. In non-free private schools, Baalbek-Hermel leads with a 80% good equipment rate, followed by Mount Lebanon at 60%. In the South, most responses indicate either good equipment or minor improvements needed.

As for **auditoriums**, the public education sector in Akkar, North, and Bekaa faces the lowest rates of auditorium availability, while Beirut has good facilities, and the South shows moderate equipment. In the free private education sector, there is a complete absence of auditoriums in Beirut, while the South and Mount Lebanon show relatively good rates. In the non-free private sector, Baalbek-Hermel has a good rate of 60%, while North Lebanon shows a noticeable lead in UNRWA sector schools, where all auditoriums are fully equipped. At the provincial level, Beirut has the highest equipment rate, while Akkar and North face severe shortages. South, Bekaa, and Nabatieh show significant disparities among schools regarding auditorium facilities, reflecting substantial differences in resources and infrastructure across Lebanese regions.

Conclusions Related to the Availability of Facilities and Services for Students with Special Needs in Schools

The analysis of facilities for students with special needs across different educational sectors highlights significant challenges that vary by region and sector.

Regarding **ramps**, survey results indicate that the public sector faces a severe shortage, with Beirut recording the highest rate of "completely unsuitable" at 62.5%, followed by North Lebanon at 65.7%. Bekaa and South Lebanon show relatively better rates, with some schools rating ramps as "good" or "excellent." In the free private sector, the availability of suitable ramps is almost nonexistent, especially in Beirut and Mount Lebanon, while Bekaa and Akkar show some relative improvements with classifications of "good" or "acceptable." In the non-free private sector, disparities exist depending on regions, with Baalbek-Hermel recording an excellent ramp provision at 33.3%, while Mount Lebanon shows an acceptable rate of 28.6%. North and South Lebanon suffer from noticeable shortages, despite some schools achieving "good" ratings. UNRWA schools show balanced results, where all Mount Lebanon schools classify ramps as "excellent," while facilities in North and South require improvements, with moderate ratings for "acceptable."

Regarding **elevators**, most public and free private schools suffer from significant shortages, especially in rural areas like Nabatieh and Bekaa. The non-free private sector performs better in some regions.

Regarding **classrooms facilities** tailored for students with disabilities, there is a noticeable weakness in the public and free sectors, whereas the non-free private sector shows better performance, especially in Beirut and Mount Lebanon. UNRWA schools demonstrate significant effort in equipping classrooms to meet the needs of disabled students.

For **equipped bathrooms**, the public sector faces a severe shortage in most governorates, particularly in North Lebanon and Bekaa. The free private sector shows some relative improvement compared to the public sector, but still faces significant challenges. The non-free private sector demonstrates better performance, with noticeable improvements in South Lebanon and Mount Lebanon, while UNRWA stands out for its well-equipped designated bathrooms, reflecting sustained efforts to meet the needs of disabled individuals.

Conclusions Related to the Availability of Internet and Digital Connectivity in Schools and Personal Electronic Devices for Learners

Regarding internet availability, there is significant variation between different sectors and regions based on survey responses. In the public sector, South Lebanon shows relatively better performance, with 53.3% of respondents rating the internet as good, whereas Beirut, Bekaa, and North Lebanon face severe challenges, with many schools rating the internet as poor. In the free

private sector, positive results were evident, especially in South Lebanon, where 100% of respondents rated internet availability as excellent, though issues are present in other areas such as suburban Mount Lebanon. For the non-free private sector, performance is relatively better, with 60% of respondents in Baalbek-Hermel describing internet availability as very good, with fewer issues in other regions. UNRWA shows significant disparities, with 50% rating the internet as good, while certain regions experience substantial challenges.

Regarding device availability, the public sector suffers from severe shortages, with 53% of respondents reporting that schools lack any laptops, showing a noticeable gap in regions like Bekaa and Beirut. In the free private sector, shortages are moderate, with 35.5% of schools lacking devices, while some schools provide one device per five to ten students. In the non-free private sector, performance is relatively better, with 44.4% of schools in Akkar providing one device per student, although 32.5% of schools still suffer from shortages. UNRWA faces a complete lack of electronic devices, posing a significant barrier to digital education.

These conclusions highlight a severe shortage of support across different sectors, with the public sector facing severe shortages, especially in remote regions such as Akkar, North Lebanon, and Bekaa. The free private sector shows slight improvements but still faces significant challenges, whereas the non-free private sector performs relatively better, with improvements in providing psychological and educational support. UNRWA offers comparatively better support services, especially in areas where resources are limited. Regional disparities show significant differences in support levels, with Beirut and North Lebanon having the highest rates of negative assessments. Southern regions and Baalbek-Hermel show slight improvements but require substantial improvements. Regarding targeted groups, administrators, supervisors, and teachers across different sectors agree on the lack of psychological and educational support services. Students with special needs suffer from significant support shortages across all sectors. The public sector faces near-complete absence of psychological support services in most regions, while the non-free private sector shows better performance in providing psychological support, particularly in Mount Lebanon. UNRWA provides relatively better services, with notable improvements in some regions.

5. Conclusions Related to Research Question Four on the Impact of Parental and Community Involvement in Schools on the Implementation of Developed Curricula

Enhancing and developing the role of the school to be effective is a fundamental objective in the context of education. The data and statistics indicate a pressing need for change and rebuilding trust between schools and the community. So, how can we make the school more effective?

One of the primary functions of school leaders is to manage internal relationships and activate them between the teaching and administrative staff, as well as between the school, parents, and the wider community. This requires school principals to develop plans and programs to foster the relationship between the school and the external community to enrich and enhance the school environment. Collaboration between schools, parents, and the community has become essential for the success and productivity of schools due to the heavy responsibilities they bear. Weak communication between administration and parents is a crucial factor contributing to misunderstandings, negatively impacting parents' involvement in supporting their children and the school.

The fourth research question was answered in this context by principals, supervisors, coordinators, and teachers. The key findings are as follows:

Communication is a critical factor for the success of the relationship between administration and parents. This skill largely depends on the effectiveness of communication, administrative flexibility, and the administration's commitment to achieving parental satisfaction to improve the school's image. All survey responses indicate that the quality of this communication varies between educational sectors and geographic areas, reflecting disparities in the relationship between administration and parents. It is strong in some sectors (e.g., private education and UNRWA) but weak in certain areas (e.g., the public sector in some governorates). This may be due to a lack of effective communication mechanisms or insufficient resources allocated to enhance this relationship. Therefore, decision-makers need to work on developing and strengthening communication mechanisms in schools to prevent the widening gap between administration and parents, which has a negative impact on students, schools, and the community.

Regarding **communication** between administration, teachers, and administration, and students to ensure community support, it is generally good across all sectors. The non-free private sector excels in achieving good and effective communication, followed by the free private sector with noticeable variations between regions. Rural areas like Akkar and Baalbek-Hermel require improved communication mechanisms to ensure equal opportunities. In the UNRWA sector, communication is ideal, reflecting high coordination between schools and donors. Meanwhile, the public sector needs support and training for school leaders to activate communication mechanisms, particularly with support agencies, to ensure the provision of necessary support and resources.

The results show significant variation in communication levels between sectors and governorates. The non-free private and free private sectors achieve the highest levels of effective communication with parents compared to the public sector, which experiences disparities in performance across regions. The non-free private sector has shown notable progress in building effective communication channels, reflecting greater investment in building relationships and its impact on effective management. Therefore, the need to enhance communication competency

among school leaders and make decisions to address the educational reality is imperative, as what we build today will shape the future.

As the demand for new skills (21st-century skills) increases, schools are no longer isolated from their surroundings but increasingly interact with the local community and parents to achieve the school's vision, mission, and objectives, and to raise students' academic achievement. Therefore, the results highlight the necessity of enhancing communication channels between schools and parents on one hand, and between schools and community organizations on the other. Training school leaders to build effective communication bridges is essential to support schools and activate their role within the community.

6. Conclusions Related to Research Question Five Regarding Expected Outcomes of Implementing Developed Curricula from Stakeholders' Perspectives in Public and Private Schools (Students and Educators)

6.1. Student Perspective (Secondary Education)

Discussions among students focused on the importance of diverse academic support. They emphasized the need to reduce class sizes to improve the quality of education and enhance communication with teachers. They also highlighted the role of administrative support in meeting students' needs and the importance of peer collaboration to promote understanding and solve problems. Regarding technology, students stressed its use to facilitate the learning process, despite some resource shortages like computer labs. In terms of challenges, students highlighted the need for infrastructure development and improved school facilities, particularly in schools lacking resources such as theaters and specialized laboratories. They also underscored the importance of enhancing technological and social skills, advocating for the acquisition of digital skills and effective communication to prepare for their academic and professional futures.

Changes in individual behaviors result from the interaction between individuals and the environmental system, including its physical and human components. In this context, students expressed their need to acquire social-emotional learning skills, as these play a fundamental role in fostering positive interactions and achieving academic and professional success.

6.2. Educational Leaders' Perspective

The interviews with educational officials highlighted the importance of developing curricula and educational programs that focus on life skills and technological competencies. Officials emphasized the need for continuous teacher training on modern teaching methodologies, including the use of technology and the implementation of interactive and personalized approaches to meet students' needs. They also stressed the significance of improving school infrastructure to provide a conducive learning environment and fostering community partnerships to support the

teaching and learning process. Additionally, they underscored the necessity of sustained investments to equip schools with digital resources and to train educational staff.

The interview findings revealed an urgent need to reconsider the teaching profession and the systems used for teacher preparation and training. Participants emphasized the importance of focusing on cultivating specialized competencies through appropriate educational training, contributing to a societal shift in the perception of the teaching profession. Achieving this requires a fundamental overhaul of teacher preparation and training programs in university colleges of education, whether public or private.

The importance of enhancing communication mechanisms between public and private school principals also emerged, through organizing regular meetings, educational consultations, and implementing joint projects that foster collaboration and the exchange of expertise. In this context, the establishment of an independent committee, separate from the Ministry of Education, was proposed. This committee would consist of experts from both public and private education sectors, tasked with overseeing the journey toward educational quality and excellence, pursuing academic accreditation standards, and ensuring quality assurance. Such measures would elevate the competency levels of both principals and teachers.

The interviews also recommended revisiting the criteria for selecting school principals, emphasizing the enhancement of their preparation and training programs within colleges of education. This aims to equip them with the necessary skills to manage schools effectively. Furthermore, the interviews suggested granting principals and supervisors teaching loads to enable them to gain practical classroom experience and engage directly with students, thereby strengthening their educational and administrative roles.

Finally, the interviews underscored the necessity of changing the central administration's perspective toward schools by activating relationships among schools within the same educational district. This can be achieved through enhanced communication, the exchange of successful experiences, addressing human resource needs, and organizing events such as celebrations and competitions. These initiatives are expected to create an integrated educational environment that supports educational development and improves the overall quality of education.

6.3. Key Findings Related to Research Question Five

- The need for teachers to adopt flexible and engaging teaching methods.
- Emphasis on extracurricular activities such as theater and music.
- Enhancing school support and peer collaboration.
- Improving classroom environments to facilitate teacher-student communication.
- Importance of career guidance and developing technological and social skills.
- Providing technological tools and investing in educational processes.

- Focus on interdisciplinary and skills-based learning.
- Implementing training programs targeting emotional intelligence.
- Adopting an applied, practical approach to education.
- Revising assessment mechanisms to ensure equity between schools.

6.4. Future Perspectives

The future outlook for educational management in Lebanon indicates a shift towards developing life and technological skills, with a focus on critical thinking, innovation, and problem-solving. Developed curricula will integrate technological skills such as programming and artificial intelligence, enabling students to adapt to future challenges. This requires a transformation in teaching methods to be more interactive and customized, alongside continuous teacher training and infrastructure technological development. In the future, there will be ongoing investments to provide suitable educational environments, including equipping schools with digital resources and training educational staff.

On a ministerial level, the ministry needs to support schools by improving infrastructure, providing educational resources aligned with developed curricula, and continuously updating curricula. Teacher development through training workshops and digital education strategies, along with partnerships with the public and private sectors, are essential. To ensure sustainable support, it is necessary to improve the school climate, utilize modern technology, and enhance community partnerships.

7. Conclusions Related to Research Question Six on Needs and Requirements for Implementing Developed Curricula from Stakeholders' Perspectives

Based on the results of interviews with educational leaders and summarizing the key points from each section, the overall data reveals:

- **Infrastructure readiness:** Many schools are not adequately prepared to meet the demands of modern curricula, whether in terms of technology, laboratories, or internet connectivity.
- **Challenges in resource availability:** There are difficulties in providing sufficient educational technologies.
- **Equity in resource distribution:** A significant gap exists in resource allocation between schools.
- **Safe and supportive learning environments:** A safe and comfortable educational environment is not available in many schools.
- **Continuous teacher training:** Ongoing training is needed to effectively apply modern curricula.

- **Need for updated training programs:** New, modern training programs are required.
- **Revising assessment mechanisms:** Assessment systems need to be revised.
- **Reevaluating the role of school management:** The role of school principals requires reassessment.
- **Government support:** Active government involvement in supporting education is essential.

Comprehensive table of strategic conclusions regarding the study of school readiness and its effective leadership in light of the developed curricula in Lebanon

To ensure ease of reviewing the results, the strategic conclusions have been organized into a comprehensive and simplified table, as illustrated below.

Topic	Strategic Conclusions	Public Sector	Private Sector	Regional Disparities
1. Infrastructure and Equipment	Weak infrastructure and equipment hinder readiness.	Significant lack of equipment, especially in rural areas.	Relatively better equipment, but varies between free and non-free private schools and regions based on financial resources and management.	Severe gaps in rural and remote areas compared to central regions (Beirut and Mount Lebanon).
2. Technology and Digital Education	Schools lack essential digital infrastructure for implementing developed curricula.	Severe lack of digital infrastructure and insufficient devices or reliable internet.	Technology available but not systematically integrated in all schools.	Rural regions face significant gaps compared to urban areas with better resources.
3. School Leadership	Need for developing administrators' competencies to lead change and implement developed curricula.	Limited training and professional development for public school administrators, with outdated criteria for selection.	More organized training programs, but limited to larger schools with strong financial resources.	Effective leadership is concentrated in central regions, while other areas face administrative inefficiency.
4. Community Partnership	Importance of enhancing collaboration between schools and communities to support developed curricula implementation.	Limited partnerships due to lack of awareness or insufficient community resources.	Better partnerships with community institutions, especially in private schools linked to international or local organizations.	Rural regions suffer from weaker community relations compared to urban areas with more active community institutions.
5. Training and Professional Development	Lack of sustainable training programs to equip administrators and teachers with developed curriculum requirements.	Limited and infrequent training programs, relying on individual initiatives or external support.	Greater training opportunities, especially in schools with strong financial and administrative resources.	Peripheral regions face a severe lack of training opportunities compared to capital and neighboring regions.

Topic	Strategic Conclusions	Public Sector	Private Sector	Regional Disparities
6. Evaluation and Quality	Need for comprehensive and periodic evaluation systems to monitor performance and ensure quality.	Lack of clear evaluation systems in public schools and reliance on traditional methods.	More advanced evaluation systems in larger private schools, but not consistent across all schools.	Rural regions experience weak institutional evaluations compared to urban areas with more systematic evaluation methods.
7. Readiness Disparities	Significant disparities in readiness between public and private schools and across regions.	Most public schools are insufficiently prepared for implementing developed curricula.	Private schools are relatively more prepared, but disparities exist based on resources and management.	Large gap between Beirut and Mount Lebanon compared to remote areas like Akkar and Bekaa.
8. Educational Equity	Inequities in educational opportunities between students in public and private schools, and between central and remote regions.	Lack of educational equity due to resource and capacity shortages in public schools.	Better opportunities for students in private schools, but with variation based on strong and weak resource schools.	Remote regions like Akkar and Hermel face significant disparities compared to central regions in educational services and quality.

Summary:

- The table highlights significant gaps between public and private schools as well as among different regions in Lebanon.
- There is a need for strategic plans that address these gaps, promote educational equity, ensure equal opportunities, and guarantee the readiness of all schools to implement the developed curricula equally.

Section Two: Recommendations

1. Recommendations Related to Demographic Data

1.1. Continuous Professional Development Programs:

Given the lack of organized professional preparation for a large number of school leaders and teachers, particularly in the public sector, it is recommended to offer specialized training programs tailored to meet the needs of school leaders and teachers, aligned with modern educational requirements.

1.2. Development of Programs for Young Teachers and Leaders:

Considering the noticeable absence of young leaders in the public sector, it is recommended to develop programs aimed at attracting young individuals into school leadership, along with providing mechanisms for support and guidance during their professional journey.

1.3. Encouraging Diversity in Management Experience:

There is a need to enhance diversity in experiences among school leaders across all sectors, including promoting the involvement of both experienced and less-experienced leaders in decision-making processes to achieve a balanced approach between different levels of expertise.

1.4. Focusing on Advanced Certifications for Leaders:

Efforts should be intensified to support higher education for school leaders and educational staff to ensure the development of professional competencies in this field and provide better educational quality.

1.5. Adjustments in Recruitment Structure in the Public Sector:

Steps should be taken to improve the employment status of school leaders and teachers in the public sector through the establishment of mechanisms to regulate hiring and contracting, ensuring academic and professional competence in school leadership.

2. Recommendations Related to Human Resources

2.1. Enhancing Psychological and Social Support:

- Employing psychologists and social specialists in public schools to meet students' needs.
- Providing temporary training for school staff in offering psychological and social support.

2.2. Improving School Administration:

- Increasing the number of supervisors and coordinators, along with comprehensive training and development plans for them.
- Strengthening the roles of laboratory supervisors and librarians through their employment in public schools and developing specific training programs for them.

2.3. Supporting Remote Areas:

- Focusing on rural regions (such as Akkar and Bekaa) to improve the distribution of human resources and ensure administrative and educational support.

2.4. Developing Comprehensive Policies:

- Establishing national plans to support human resources, including clear policies for recruitment and role diversity.

2.5. Enhancing Safety and Security:

- Employing adequate numbers of guards to ensure student safety and protection of school property.

2.6. Building Partnerships with the Private Sector:

- Strengthening collaboration with the private sector to leverage its successes in managing human resources and implementing innovative strategies to improve school performance.

2.7. Investment in Professional Development:

- Implementing continuous training programs for all categories of school personnel to keep up with educational advancements.
- Supporting local training centers (teacher hubs in districts) to provide sustainable training opportunities for remote regions.

2.8. Updating Recruitment Policies:

- Developing clear policies to promote specialization and role diversity in schools.
- Creating comprehensive national plans to support human resources in the educational sector.

2.9. Improving Distribution of Human Resources:

- Conducting periodic studies to identify gaps in worker distribution between regions and schools.
- Redistributing staff based on school size, student numbers, and specific needs.

2.10. Reducing Reliance on Temporary Contracts:

- Developing a comprehensive plan to resolve the issue of temporary contracts in education or providing permanent contracts for teachers and staff to ensure professional stability and improve educational quality.

2.11. Enhancing Technology Utilization:

- Strengthening the integration of automated technologies in education and school administration through training staff and providing necessary equipment.

3. Recommendations Related to Areas Needing Development in Administration

3.1. Strengthening Educational Leadership:

- Training school leaders and supervisors to improve leadership skills and problem-solving abilities.
- Enhancing communication channels between administration, teachers, and the local community.

3.2. Developing Strategic Planning:

- Establishing unified national standards for strategic planning.
- Supporting schools in peripheral areas with resources and training.

3.3. Improving Human Resource Efficiency:

- Assessing schools' needs for educational staff.
- Offering regular training courses for teachers and staff.

3.4. Promoting Self-Assessment Culture:

- Strengthening self-assessment for school leaders, teachers, and learners.
- Utilizing assessment results to enhance performance and foster innovation.

3.5. Supporting the Official Sector:

- Addressing disparities between governorates to ensure equal opportunities.
- Providing necessary financial and technical support.

3.6. Leveraging Successful Experiences:

- Transferring successful practices from the private non-free sector to other sectors.

3.7. Involving Local Communities:

- Activating the role of local communities to support schools.
- Raising awareness on the importance of planning and evaluation to achieve development.

3.8. Improving Resource Management Plans:

- Encouraging participatory management in low-performing governorates, especially in Akkar and Bekaa.
- Developing comprehensive and sustainable planning mechanisms to enhance effective participation.
- Adopting models from distinguished sectors like UNRWA and the private non-free sector to apply best practices.
- Supporting principals in peripheral governorates with training programs to enhance their abilities in planning and effective community engagement.

3.9. Strengthening Leadership Models:

- Promoting participatory and distributed leadership through intensive training programs and support for leadership teams within schools.
- Investigating reasons for weak participatory leadership in certain areas and developing local strategies to address them.
- Utilizing experiences from high-performing schools to disseminate best practices.
- Encouraging cooperation between public and private sectors to unify participatory leadership models.

3.10. Encouraging and Supporting Innovative Teaching:

- Fostering innovation in public education through administrative training programs and promoting innovative initiatives.
- Implementing unified administrative plans to support innovation across all governorates.
- Strengthening partnerships between educational sectors through creating collaborations between public and private schools to exchange innovative practices.

3.11. Involving Teams in Major Decision-Making at Schools:

- Promoting participatory management through intensive training programs and establishing mechanisms for evaluating team involvement.

3.12. Enhancing Change Management Skills:

- Organizing training sessions to strengthen leaders' change management skills, especially in rural areas.

3.13. Developing Effective Communication Skills:

- Establishing organized communication mechanisms between school administrations, teachers, and parents to enhance transparency and trust.

3.14. Improving Problem-Solving Skills:

- Conducting ongoing workshops to analyze issues and develop innovative solutions.
- Integrating critical and analytical thinking approaches into training plans.

3.15. Supporting Motivational and Educational Development:

- Designing programs to motivate teachers and foster collaboration between administrations.
- Enhancing reward systems and recognizing efforts, particularly in schools facing significant challenges.

3.16. Strengthening Planning and Organization Skills:

- Developing training programs aimed at improving planning and organizational skills among school leaders.
- Encouraging the use of advanced management systems to facilitate planning and organization in schools.

3.17. Improving Performance Equity Across Governorates:

- Supporting schools in rural areas to enhance leadership competencies.
- Promoting collaboration between urban and rural schools to exchange successful experiences.
- Ensuring equitable resource distribution among all governorates to support comprehensive and effective education.

3.18. Fostering Leadership Culture in Education:

- Preparing training programs to prepare teachers and coordinators as future leaders in schools.

4. Recommendations for Areas Needing Development in School Administration

4.1. Developing Decision-Making Competencies:

- Designing specialized training programs to enhance decision-making skills among school leaders, focusing on the public sector in regions like Mount Lebanon, Akkar, and Baalbek-Hermel.

4.2. Promoting Innovation in Educational Practices:

- Organizing workshops and training sessions for leaders and supervisors in the public sector, with a focus on fostering innovation in educational practices in Beirut and the North.

4.3. Implementing Strategic Planning:

- Providing comprehensive training for all leaders in both the public and private sectors, prioritizing governorates with the greatest need such as Akkar and Bekaa.

4.4. Strengthening Communication with Stakeholders:

- Conducting workshops on effective communication strategies, targeting leaders in both the public and private sectors.

4.5. Building Partnerships:

- Strengthening community partnerships through collaborative initiatives with local and civil communities.

4.6. Emphasizing Innovation:

- Developing programs to support innovation in education, providing necessary tools and skills for leaders and teachers to foster creative thinking.

4.7. Geographic Distribution of Interventions:

- Allocating resources and training based on the geographic needs of each governorate to ensure balanced school development.

5. Recommendations Related to Follow-Up and Evaluation by School Administration

5.1. Strengthening Commitment of Leaders:

- Establishing regular classroom visitation schedules, particularly in rural areas like Akkar and Baalbek-Hermel. Training leaders on the importance of regular evaluations.

5.2. Improving the Public Sector:

- Providing additional resources and motivating leaders to consistently monitor educational performance, especially in rural areas.

5.3. Supporting Rural Areas:

- Launching initiatives for low-performing governorates to enhance administrative capacities, addressing performance gaps.

5.4. Developing Evaluation Systems:

- Implementing flexible and technological systems to track teacher and staff performance, offering timely feedback.

5.5. Building Teachers' Capacities:

- Organizing continuous training sessions based on classroom visit outcomes and teachers' needs across various schools.

5.6. Regular Assessment:

- Conducting periodic reviews of classroom visitation systems to improve efficiency and address challenges encountered during evaluations.

5.7. Knowledge Sharing:

- Utilizing successful models from the non-free private sector to transfer best practices to the public sector, enhancing work methods and evaluation techniques.

5.8. Adopting Technology:

- Employing digital platforms to systematically document evaluations and feedback, promoting transparency and effective follow-up.

5.9. Enhancing Feedback Culture:

- Raising awareness about the importance of continuous feedback to improve educational performance, fostering an interactive learning environment through continuous learning and reliance on evaluations.

6. Implementing Support Programs for Struggling Students

- Strengthening support programs for struggling students in the public sector, with a focus on underperforming areas such as Akkar and Mount Lebanon (suburbs).
- Improving coordination between schools and local educational authorities to ensure the continuity of programs across all governorates, achieving equal opportunities.

- Benefiting from the experience of the non-free private sector and UNRWA schools, which have demonstrated a high commitment in this field, applying similar models in public schools.
- Conducting regular follow-ups to measure the effectiveness of programs and ensure equal opportunities for all students.

Comprehensive Table of Strategic Recommendations and Mechanisms Regarding the Study of School readiness and its Effective Leadership in Light of the Developed Curricula in Lebanon

Strategic Recommendation	Mechanism	Timeline Priority	Responsible Parties	Performance Indicators
1. Enhancing Leadership Competencies for School Principals and Administrators	<ul style="list-style-type: none"> • Completion of principal preparation programs at the Faculty of Education, Lebanese University. • Organization of specialized training programs in educational leadership and modern school management. • Continuous training for principals on modern educational technologies. • Updating criteria for selecting principals to align with the updated curriculum. 	Short-term	Ministry of Education and Higher Education (MEHE), Center for Educational Research and Development (CERD), Lebanese University Faculty of Education, private universities	Number of implemented training programs, percentage of principals trained, post-training performance evaluation, percentage of principals completing preparation courses at the Faculty of Education.
2. Upgrading School Infrastructure and Learning Environment	<ul style="list-style-type: none"> • Upgrading classrooms with suitable technological tools (e.g., smart boards) and internet connectivity. • Enhancing school facilities to create a central and safe learning environment. • Improving school safety and providing mechanisms to protect students and staff. 	Medium-term	MEHE, municipalities, private sector partnerships, international organizations	Percentage of schools equipped with technology, improved satisfaction rates among students and teachers, enhanced safety.
3. Strengthening Community Partnership	<ul style="list-style-type: none"> • Conducting workshops with parents to explain the updated curriculum and new teaching methods. • Developing partnerships with community institutions to support school activities. • Forming school councils to encourage local community participation in school development. 	Short- and medium-term	MEHE, school administrations, civil society, local institutions and communities	Number of workshops and councils formed, percentage of community participation in school activities.

Strategic Recommendation	Mechanism	Timeline Priority	Responsible Parties	Performance Indicators
4. Promoting Digital Education and Technology	<ul style="list-style-type: none"> • Training teachers on educational technologies, such as e-learning platforms. • Enhancing the use of information technology in school management. • Developing digital training materials supporting the updated curriculum. • Creating programs to develop digital skills for teachers and students. 	Short-term	MEHE, CERD, EdTech companies, specialized educational institutions	Percentage of schools connected to the internet, number of teachers using educational technology, number of platforms used.
5. Developing Continuous Professional Development (CPD) Programs for Teachers	<ul style="list-style-type: none"> • Reviewing teacher preparation programs. • Providing continuous training programs on the updated curriculum for teachers. • Encouraging teachers to participate in CPD workshops. • Building professional teams among teachers to share experiences regarding curriculum implementation. 	Ongoing	MEHE, CERD, universities, online platforms	Percentage of teachers participating in CPD, improvement in teaching and educational performance post-training, effectiveness evaluation of workshops.
6. Strengthening Evaluation and Continuous Monitoring Mechanisms	<ul style="list-style-type: none"> • Adopting comprehensive evaluation mechanisms, including continuous assessments of all school staff. 	Long-term	MEHE, CERD, educational inspection, State Council, Civil Service Council, school administrations	Annual evaluation reports, improvement in performance post-evaluation, implementation of recommendations from reports.
7. Institutional Evaluation Activation	<ul style="list-style-type: none"> • Conducting periodic assessments of school performance using standardized performance indicators. • Ensuring annual self-assessment by schools to evaluate readiness for curriculum implementation. • Ensuring the effectiveness of recommendations derived from reports. 	Medium- to long-term	MEHE, CERD, educational inspection, State Council, Civil Service Council, school administrations	Annual evaluation reports, institutional development post-evaluation, implementation of report-derived recommendations.

Strategic Recommendation	Mechanism	Timeline Priority	Responsible Parties	Performance Indicators
8. Restructuring School Administrative Frameworks	<ul style="list-style-type: none"> Clearly defining roles and responsibilities within the administrative structure. Restructuring school administration to ensure effective task distribution. 	Short- to medium-term	MEHE, CERD, State Council, Civil Service Council, specialized and relevant entities	Number of schools restructured, clarity of roles within administrative structures, functional distribution efficiency.
9. Developing the Legislative and Administrative Framework	<ul style="list-style-type: none"> Enacting supportive and updated legislation to provide resources, support, and facilitate the implementation of updated curricula. Utilizing the administrative flexibility adopted by private schools and activating regulatory legislation. Enforcing legislation that supports administrative and educational innovation. 	Medium-term	MEHE, CERD, State Council, Civil Service Council, all relevant legislative entities	Implementation of new legislation, assessment of improvements in school support, implementation of legislation in remote areas.
10. Achieving Participatory and Transparent School Leadership	<ul style="list-style-type: none"> Encouraging principals to adopt participatory leadership styles involving teachers, students, and parents. Ensuring transparency in administrative and educational decisions through periodic publication. 	Short-term	MEHE, CERD, school administrations, school councils	Stakeholder participation in decision-making, transparency evaluation levels in schools.
11. Formulating Strategies for Sustainable Educational Change	<ul style="list-style-type: none"> Steering updated curricula towards inclusive education that meets the needs of all students. Supporting research and development in education through projects aimed at improving curriculum implementation. Ensuring sustainability of curriculum implementation through comprehensive monitoring mechanisms. 	Long-term	MEHE, CERD, universities, educational research institutions, monitoring bodies	Number of implemented research projects, curriculum development to meet student needs, interaction between research and educational practices.

Strategic Recommendation	Mechanism	Timeline Priority	Responsible Parties	Performance Indicators
12. Enhancing Communication within Schools	<ul style="list-style-type: none"> Strengthening communication between administration and teachers using technological systems to exchange information. Creating communication channels between teachers and parents for continuous feedback. 	Short-term	MEHE, CERD, school administrations, parents, technology companies	Number of adopted technological systems, communication levels among stakeholders.
13. Reforming Teacher Employment Policies	<ul style="list-style-type: none"> Developing a plan to address the various forms of teacher contracting issues. Organizing preparatory courses for teachers to reduce contract-related burdens. Organizing continuous training for teachers. Improving contractual conditions to ensure teacher stability in schools. Implementing incentive programs for contracted teachers. 	Medium-term	MEHE, CERD, Faculty of Education at Lebanese University, State Council, Civil Service Council, monitoring bodies, school administrations, educational unions, training institutions	Percentage of contracted teachers, level of satisfaction among contracted teachers regarding training programs, teaching performance improvement post-training.

Summary

Achieving school readiness in Lebanon for implementing the updated curriculum necessitates a set of integrated strategies focusing on enhancing school leadership, modernizing infrastructure, supporting digital education, and advancing teacher professional competencies. These recommendations aim to create a flexible school environment capable of adapting to rapid curriculum changes and evolving educational needs.

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Appendix 19: Analysis of Study Results

1. Appendix 1: Curriculum Development in Ireland

The study by Datnow, et al., (2022) focused on the progress made within the Irish education system to redevelop the national curriculum for primary schools. While the redevelopment process focuses on all aspects of curriculum, teaching and assessment, particular emphasis is placed on elements related to the holistic development of the learner. This is centered around exploring ways to enhance the role of the learner and teacher in relation to curriculum and teaching methods in classrooms and schools. Key issues in the transition from a detailed and prescriptive curriculum to a curricular framework are explored. Also, the interaction with policies that prioritize literacy and numeracy while maintaining a focus on the holistic development of the learner are explored.

Three key themes emerged from the case study analysis. Firstly, system-wide stakeholder engagement was central to the redevelopment process. Secondly, the redevelopment process positioned the entire education system as a ‘learning system’, envisioning all stakeholders as contributors and learners in the development journey. Thirdly, there is a shift in the understanding of what a curriculum is by moving from a traditional detailed, objectives-based format to a curricular framework based on learning outcomes. Collectively, the redevelopment process proposes to decentralize many elements of curriculum design and implementation, highlighting the importance of teacher and child agency.

The curriculum redevelopment process in Ireland has been characterized by several key elements:

- **System-wide engagement:** The redevelopment involved broad engagement with a range of stakeholders, including teachers, parents and education professionals, who were seen as contributors and learners in the development journey.
- **Research development:** The National Council for Curriculum and Assessment (NCCA) commissioned a number of national and international research papers on critical issues such as assessment and pedagogy to inform the redevelopment process. These findings were discussed at national curriculum seminars.
- **Consultations:** Since 2011, the NCCA has conducted consultations with a range of stakeholders, including learners and teachers, to gather feedback on curriculum principles and specific provisions. This has included participatory approaches to engaging young children.
- **Iterative learning:** The development process has been based on iterative learning from research, consultations and seminars, promoting ownership of decisions among teachers and engaging a wide range of stakeholders to ensure a comprehensive review of curriculum design and implementation.
- **Draft Framework:** A significant turning point was the publication of the Draft Primary Curriculum Framework for Consultation in February 2020, which proposed a shift from a detailed curriculum to a more flexible framework, with an emphasis on outcomes for pupils and the importance of the role of teachers and learners in the learning process.

Capacity Building and Infrastructure for Change

The Capacity Building and Infrastructure for Change section of the Curriculum Reform process highlights the complexity and importance of transforming the National Curriculum in Ireland. It emphasizes the need for all stakeholders across the system to engage from the outset to support capacity building at different levels. Key activities included seminars and events designed to promote understanding and collaboration between stakeholders, ensuring they are aware of their

roles in the change process. There was a particular focus on alignment and creating coherence within the education system, in addition to identifying the interconnections between different actors. This collaborative approach is essential to facilitate effective contributions to curriculum change and ensure that all stakeholders understand their importance in the overall educational development landscape.

Lessons for the Policy

- **Inclusive Development:** Policies should prioritize the holistic development of learners, integrating academic quality with social, emotional and physical wellbeing.
- **Stakeholder engagement:** Effective policy development requires the engagement of a wide range of stakeholders, including teachers, parents, and learners, to ensure that curricula are informed by diverse perspectives.
- **Flexibility and adaptability:** Policies should allow for flexibility in curriculum implementation, enabling teachers to adapt their approach based on the unique needs of their students and local contexts.
- **Professional development:** Continuous professional learning opportunities for teachers are essential to equip them with the skills and knowledge needed to implement the new curriculum effectively.
- **Support systems:** Establishing support systems is critical to facilitate communication and collaboration among stakeholders, ensuring that policy changes are understood and implemented effectively at all levels of the educational system.
- **Iterative process:** Policy development should be iterative, allowing for ongoing feedback and adjustments based on experiences and insights gained.

2. Appendix 2: The Development of Education in Singapore

Singapore

The government centrally controls policies and infrastructure to create an effective system, with high-quality public education available to all under the Compulsory Education Act 2000. At the same time, the decentralization of the system allows schools to develop continuously as learning organizations with minimal government intervention. In line with the increased autonomy of schools, there has been a shift from a centralized external assessment system conducted by a team of inspectors to self-evaluation of schools using formative, standards-based performance measures.

Education in Singapore has evolved from a focus on meeting economic needs and supporting learners' academic development to an increasing focus on learners' holistic development, including character formation, community engagement and self-fulfillment. The focus on inclusive education also aims to expand the standards of education beyond cognitive abilities and academic performance to other areas of growth such as physical, social-emotional and artistic achievement.

In the transition from economic imperatives to comprehensive motivations, there has been a gradual move across five policy phases (1965 to 2022 and beyond) towards diversifying curricula and schools to meet the needs of different learners, while giving schools more autonomy to innovate teaching methods and improve the quality of education to meet the unique needs of their students.

The comprehensive development of the curriculum has included the provision of multiple pathways to academic success, along with increased personalization of the curriculum that recognizes the different abilities and strengths of learners. By 2024, the branch system in all secondary schools will be replaced by a full subject-based grouping system to support the different abilities and interests of learners in specific subjects.

A series of developments have also been implemented to address learners' well-being needs, including the 2005 Social Emotional Learning Framework, the 2007 Comprehensive Health Framework to encourage learners to lead healthy lifestyles. It also included a comprehensive curriculum for character and citizenship education with knowledge, skills, values and attitudes explicitly taught.

In summary, the five phases of education policy reforms have seen gradual systemic shifts in four key areas:

- From top-down government control towards more bottom-up initiatives and increased school autonomy in curriculum, teaching methods and assessment.
- From centralized direction to increasingly system-wide innovations.
- From teacher-centred teaching strategies to increasingly learner-centered teaching methods.
- From encouraging enrolment to focusing on quality education.

Education laws and policies have been put in place to move the system in these desired directions. In the final phase, 'Learning for Life' (2020 onwards), the shift continues away from an overemphasis on academic achievement, with a focus on preparing Singapore students to communicate, collaborate, be creative and be flexible in the face of changing circumstances.

In order to shift teaching methods from being primarily didactic in nature – with a focus on preparing learners for national examinations – the Singapore government has recognized the need to focus on building the capacity of school leaders and teachers to keep pace with the new curriculum. School clusters were established in 1997 to enable collaboration and learning among school leaders, key staff and teachers. Collaborative learning opportunities are provided for teachers at different ecological levels: professional learning communities within schools and networked learning communities across schools. Outside the education system, the Singapore government works with other ministries and community-based organizations, such as ethnic self-help organizations to address issues of educational equity.

Political shifts and infrastructures for change in Singapore

The key ideas in the section 'Political shifts and infrastructures for change' refer to systemic changes in Singapore's education reforms. Here are the key points:

- 1) Top-down initiatives: There has been a move towards greater school autonomy in areas such as curriculum, teaching methods and assessment, giving schools more control over their teaching practices.
- 2) Eco-innovations: Development has moved from centralized direction to a more ecosystem-based approach, promoting innovations that span the entire education system.
- 3) Learner-centered teaching methods: The focus has shifted from teacher-centered teaching strategies to learner-centered strategies, highlighting the importance of engaging learners in the learning process.
- 4) Focus on quality of teaching: The development has moved from simply providing education to prioritizing quality of teaching, ensuring that teaching methods are effective and conducive to learning.

- 5) Accumulation of change architectures: Education policies have seen the development of infrastructures that support both the holistic development of learners and academic achievement, indicating a holistic approach to educational reform.
- 6) Complex conditions: The development also addresses challenges arising from circumstances such as parental involvement and the recent impacts of the COVID-19 pandemic, which have impacted educational practices and policies.

Ecology of Educational Development in Singapore

Ecology of Education Development in Singapore refers to systems and frameworks that support and enhance school improvement efforts through collaboration and shared learning. The key aspects of these infrastructures are as follows:

- 1) **School Clusters:** Initiated by the Ministry of Education in 1997, schools are grouped into clusters overseen by a cluster leader. This structure enables collaboration among school leaders, allowing them to share ideas, resources, and best practices, and foster a culture of continuous improvement.
- 2) **Professional Learning Communities (PLCs):** Within schools, these communities provide a platform for teachers to engage in collaborative learning. These communities focus on sharing teaching strategies, discussing learner outcomes, and collectively addressing challenges, which enhances professional development and quality of teaching.
- 3) **Networked Learning Communities (NLCs):** These communities expand collaboration across schools, allowing teachers from different institutions to connect and learn from each other. These broader networks support the sharing of innovative practices and resources across the education system.
- 4) **Curricula Design Support:** The ecosystem encourages teachers to move from implementing ready-made curricula to designing their own and exploring new teaching practices. This shift allows teachers to adapt their approaches to meet the needs of diverse learners.
- 5) **Collaboration with External Organizations:** The Ministry of Education collaborates with other ministries and community organizations, including ethnic advocacy groups, to address issues of educational equity. This collaborative approach helps create a more inclusive learning environment.
- 6) **Adapting to Challenges:** This ecology has proven useful in adapting to challenges such as the COVID-19 pandemic. The ability to quickly shift to distance and blended learning models has demonstrated the resilience of the educational system.

Parallel education in Singapore

Parallel education refers to informal and unstructured education systems that exist alongside the formal education system. In Singapore, this phenomenon is characterized by several key aspects:

1. **Parental pressure and expectations:** There is a strong social emphasis on academic achievement, largely driven by parental expectations that prioritize exam results and the pursuit of places in elite schools for their children, which can lead to a culture of competition and pressure.
2. **Tutoring and additional education:** Parallel education often takes the form of private tutoring, remedial classes and extra-curricular programs. Parents use these services to enhance their children's academic performance, particularly to prepare for national examinations.

3. Informal rating systems: Despite formal policies that aim to reduce competition-such as the abolition of school ratings- parents and private education providers have created informal rating systems based on publicly available information. This reflects the continued desire for comparative performance measures across schools.

4. Impact on educational equity: The presence of parallel education can exacerbate inequalities within the education system. Families with greater resources can afford private tutoring and additional educational opportunities, widening the gap between learners from different socio-economic backgrounds.

5. Resistance to reform efforts: The parallel education infrastructure can undermine formal educational reforms that aim to enhance overall outcomes. Parents' focus on narrow academic achievement can create resistance to changes that prioritize broader educational goals such as creativity and critical thinking.

6. Cultural values and norms: The parallel education system reinforces cultural values that equate educational success with high exam scores and admission to prestigious schools. This cultural context complicates efforts to change perceptions of the purpose and value of education.

Policy lessons learnt from Singapore's educational reform

1. Broadening the definition of success: Policymakers should broaden their definition of educational success beyond academic achievement to include holistic outcomes such as social and emotional skills, creativity, and resilience.

2. Engaging parents in development efforts: To counter the impact of parallel education, it is essential to engage parents in the educational development process. Educating parents about the benefits of inclusive education and providing alternatives to support their children's development can help shift their focus away from narrow academic outcomes.

3. Addressing socio-economic disparities: Policies should consider the impact of parallel education on educational equity. Providing support and resources to disadvantaged families can help achieve equity and ensure that all learners have access to high-quality educational opportunities.

4. Fostering collaboration among stakeholders: Building strong partnerships between schools, parents, and community organizations can create a supportive learning environment. Collaborative efforts can enhance the effectiveness of developments and ensure that they are responsive to the needs of learners and families.

5. Monitoring and evaluating the impact of developments: Continuous monitoring and evaluation of education reforms is essential to understand their effectiveness and to make necessary adjustments. Longitudinal research can provide insights into how policy changes impact learners' well-being and academic outcomes over time.

6. Promoting a culture of lifelong learning: Encouraging a mindset that values lifelong learning and personal growth can help shift the focus away from critical exams. Policies that promote continuing professional development for teachers and provide lifelong learning opportunities for learners can support this cultural change.

7. Balancing academic and holistic goals: Policymakers must balance academic goals with holistic development. Achieving this balance is essential to create an integrated educational system that meets the diverse needs of learners.

3. Appendix 3: Implementation of the Happiness Curriculum in Delhi

An Overview of the Happiness Curriculum

The Happiness Curriculum was introduced by the Delhi government in July 2018 in all 1,024 government schools. The curriculum consists of daily 45-minute lessons that aim to develop mindfulness, critical thinking, reflection, and social and emotional skills in learners from kindergarten to grade 8. It includes three main modules that focus on exploring happiness, experiencing happiness in relationships, and actively engaging in enjoyable activities.

Key features of implementation

- 1) **Widespread rollout:** The curriculum was rolled out in all schools simultaneously without pilot studies, making it a mandatory subject.
- 2) **Flexible design:** The structure of the curriculum allows for easy integration into the school day without requiring major changes to existing schedules or systems.
- 3) **Teacher training:** Extensive training was provided to teachers through a cascade model, which ensured overcoming initial resistance and ensuring ongoing support.
- 4) **Focus on well-being:** The curriculum focuses on well-being as a core learning objective, alongside academics, promoting a balanced approach to student development.
- 5) **Engagement with stakeholders:** Implementation involved collaboration between government officials, NGO partners, and teachers to create a supportive environment for development.
- 6) **Feedback mechanisms:** Clear feedback loops were established to iteratively improve the curriculum based on teacher and learner experiences.
- 7) **Cultural adaptation:** Efforts are underway to adapt the curriculum to other Indian states, taking into account geographical and cultural differences.
- 8) **International interest:** The curriculum has attracted the attention of other Indian states and countries interested in similar developments, indicating its broader appeal and potential for replication.

Challenges faced

- **Teacher resistance:** Initial resistance from teachers was a major barrier, necessitating continued engagement and reassurance about the benefits of the curriculum.
- **Balancing academic and well-being focus:** The balance between remedial academic instruction and the need for comprehensive well-being interventions was highlighted.
- **Resource disparities:** Implementation of the curriculum in less privileged areas of India presents unique challenges, underscoring the need for an adaptive approach.

Lessons learned from the Delhi Happiness Curriculum for policy

- 1) **Starting at a wide scale:** The happiness curriculum was implemented in all 1,024 government schools in Delhi simultaneously rather than in pilot programs. This approach ensured that no student was left out and allowed for rapid adoption across the educational system. Partners later agreed that starting at a wide scale was the right choice because a large pool of teachers was quickly identified who had become proficient in the curriculum and could share best practices.

- 2) **Modular design:** The curriculum was designed to fit easily into the existing school schedule, allowing for easy integration without the need for additional changes to school operations. This organization helped schools adopt the curriculum efficiently, even in the absence of large-scale infrastructure changes.
- 3) **Ecological approach:** Successful implementation involved collaboration between government officials, NGOs, and school staff. This multifaceted approach helped create a supportive environment for the curriculum and allowed for the sharing of expertise and resources, enhancing the overall quality of the program.
- 4) **High levels of specifications:** The curriculum included detailed specifications for lesson activities, ensuring consistency across different schools. This clarity facilitated more uniform implementation and allowed teachers to focus on delivering high-quality instruction.
- 5) **Trust and communication:** Building trust among stakeholders through transparent communication and face-to-face interactions was critical. Engagement with teachers, parents, and learners helped gain acceptance and support for the curriculum.
- 6) **Focus on process, not outcomes:** The Happiness Curriculum focuses on qualitative assessments of student development rather than solely quantitative measures. This approach acknowledges that the benefits of the curriculum may take time to emerge, encouraging a more patient and reflective assessment of its impact.
- 7) **Capacity building:** Prior investments in educational infrastructure and teacher training were essential to preparing the system for such large-scale development. These key elements supported the successful expansion of the Happiness Curriculum.
- 8) **Adaptability and iteration:** The curriculum is designed to be iterative, allowing for continuous improvement based on feedback from its implementation. This flexibility can help maintain its relevance and effectiveness over time, even in changing political climates.
- 9) **Community engagement:** Engaging the community, including parents and local organizations, creates a supportive network that reinforces the curriculum's objectives and helps sustain its impact.
- 10) **Long-term vision:** Development should be seen as part of a broader strategy to shift educational priorities from competition to coexistence, with a focus on holistic development alongside academic achievement.

4. Appendix 4: Overview of the International Baccalaureate (IB) Program

The IB Primary Years Program (PYP) requires full implementation of its framework throughout the school, affecting all learners and staff. Unlike programs where participation is optional, the PYP requires comprehensive changes to the school, including teaching, organization and culture, to enhance overall learner outcomes. This commitment requires a lengthy accreditation process that involves the involvement and support of a diverse range of stakeholders in the school community.

Changes in teaching and curriculum

- 1) **Holistic approach:** The PYP focuses on a holistic approach to education that encourages learners to connect learning to the wider world and understand important global issues.
- 2) **Inquiry-based learning:** Teachers are trained to adopt interdisciplinary, inquiry-based teaching methods to help learners connect different subjects.
- 3) **Adapting teaching methods:** Teachers are encouraged to adapt content and teaching methods, moving away from traditional rote learning to more dynamic and interactive classroom experiences.
- 4) **Professional development:** Continuous professional development is emphasized for teachers to ensure that they are able to implement the PYP effectively, adapting to local contexts while maintaining the integrity of the program.
- 5) **Global perspective:** The curriculum promotes international thinking, helping learners appreciate diverse perspectives and cultures.
- 6) **The role of learners:** Strong emphasis is placed on enhancing the role of learners in the learning process, allowing them to actively participate in their own learning.
- 7) **Interdisciplinary themes:** Teaching is organized around six interdisciplinary themes of global relevance to facilitate a comprehensive understanding of complex topics.
- 8) **Cultural change in schools:** Implementation of the PYP brings about a cultural shift in schools towards continuous assessment, reflection and commitment to international thinking.

School community and stakeholder engagement

- 1) **Stakeholder engagement:** The accreditation process requires the involvement of a diverse range of stakeholders, ensuring that the entire school community is invested in the changes.
- 2) **Transformative impact:** The PYP aims to transform the entire school environment, impacting not only academically but also the social and emotional development of learners.
- 3) **Supporting Infrastructure:** The IB system provides a strong educational infrastructure to support schools in adapting to the PYP while allowing for local customization.
- 4) **Community Connections:** Schools are encouraged to connect with their communities, fostering relationships that extend beyond the classroom.

Challenges and Considerations

- 1) **Balancing Curriculum Rigor and Equal Opportunity:** Schools must address the challenge of maintaining academic rigor while ensuring equal opportunities for all learners.
- 2) **Flexibility:** The PYP allows for flexibility in implementation, recognizing the unique contexts of different schools and communities.
- 3) **Commitment to IB Principles:** Schools seek to maintain commitment to IB principles while adapting to local educational standards and practices.

Lessons from IB Policies

Key Insights for Policymakers

Policymakers seeking to reform education systems can benefit from lessons from the IB system.

Key lessons:

- 1) **Managing commitment and flexibility:** The IB system emphasizes the importance of maintaining the core principles of the program while allowing for local adaptation to meet community needs.
- 2) **Equity and rigor:** There is a need to balance rigorous educational standards with providing equitable access to high-quality education for all learners.
- 3) **Supporting comprehensive outcomes:** Educational developments must leave space for traditional academic achievement, while nurturing more holistic learning outcomes that include social and emotional development.
- 4) **A strong curricular framework:** Developing a strong and flexible educational framework is essential. The IB system provides specific educational frameworks and learning outcomes that teachers can adapt using local standards.
- 5) **Continuous professional development:** Supporting teachers through continuing professional development opportunities is essential for effective program delivery.
- 6) **Collaboration and reflection:** The IB system encourages a collaborative environment among teachers, which promotes consistency and communication in learners' learning.
- 7) **Focus on inquiry-based learning:** The shift from traditional teaching roles to more directive roles allows teachers to guide learners through inquiry, which promotes critical thinking and self-reflection.
- 8) **Systematic improvement:** The IB system aims for continuous improvement, ensuring that schools do not just meet standards but also improve their teaching practices.
- 9) **Exchange of ideas:** Facilitating the exchange of ideas between IB schools can lead to innovative practices and solutions that enhance the learning environment.
- 10) **Global perspectives:** Exposure to diverse perspectives and global issues is integral, helping learners connect their learning to the wider world and develop respect for different perspectives.

Capacity Building in the IB system

Capacity building in the IB system involves developing the skills, knowledge and resources that enhance teaching practices in schools. The IB system achieves this through several key mechanisms:

- 1) Professional development: Ongoing training and workshops for teachers to improve teaching strategies.
- 2) IB Teacher Network (IBEN): A network of IB-trained teachers who support each other through mentoring, consultation and coaching.
- 3) Standards and practices: Clear guidelines that ensure quality and consistency across IB programs.
- 4) Adaptability: A less prescriptive educational framework that allows for local adaptation while maintaining IB objectives.
- 5) Collaboration and feedback: Regular interactions between IB schools and systemic hubs to foster the exchange of ideas and improvement.
- 6) Validation visits: Processes to assess and ensure compliance with IB standards, fostering a culture of accountability.
- 7) Flexibility: The ability of schools to adapt educational frameworks to suit local contexts without losing sight of IB objectives.
- 8) Resources and tools: Providing syllabuses and learning frameworks that teachers can personalize.

5. Appendix 5. Conceptual Framework: Factors Affecting School Readiness

Macro-Level Factors

Political Context

- **Political Stability:** The impact of political instability on education policies, funding, and implementation of new curricula.
- **Government Commitment:** The level of government commitment to education, budget allocations, and public statements.
- **Funding Allocation:** Impacts infrastructure, teacher salaries, and learning materials.
- **War and Post-War Situations:** Disruption of education systems and infrastructure.

Economic Context

- **Poverty and Inequality:** The relationship between poverty and educational outcomes, including access to education, completion rates, and educational achievements.
- **Cost of Education:** It examines the costs associated with education, including school fees, transportation, and textbooks. It analyzes the impact of these costs on learners' ability to access and complete education.
- **Education Financing:** Examines sources of education financing, including government budgets, donor agencies, and private sources.
- **Infrastructure and Resources:** Lack of facilities, classrooms, and learning materials.
- **Child labor:** Child labor can prevent children from attending school and hinder their academic progress.

Socio-Cultural context

- **Cultural beliefs and values:** How cultural beliefs and values regarding education, gender, and social status affect educational outcomes.
- **Language barriers:** Challenges faced by learners learning in a second or third language and the need for language support programs.
- **Immigrants:** Challenges and opportunities presented by immigrants.
- **School availability:** Distribution of schools across regions and learners' access to them. Geographic and transport factors affecting access to education.

Micro-level factors

Educational infrastructure

- **Classrooms and facilities:** Assess the quality and adequacy of classrooms, laboratories, libraries, and other educational facilities. Analyze the impact of infrastructure on teaching and learning.
- **Resources:** Lack of textbooks and digital resources.
- **Teacher training:** The quality and relevance of teacher training programmes.
- **Activating professional learning communities (PLCs):**
- **Encouraging collaboration between teachers and sharing experiences**
- **Providing a platform for continuous professional development**
- **Teacher qualifications**

Technological infrastructure

Availability of technology in schools, including computers, internet access and digital resources.

Curricula

- Relevance and alignment: Curricula are aligned with national development goals and international standards.
- Pedagogical methods: Teaching and learning methods used in curricula. Balance between teacher-centered and learner-centered education. Use of active learning, inquiry-based learning and collaborative learning methods.
- Technology integration: The extent to which technology is integrated into curricula. Promoting a comprehensive curriculum that integrates humanities with STEM.
- Assessment practices: Assessment methods used to assess learners' learning.

School Leadership and Management

Leadership capacity: The ability of school leaders to implement and manage reforms:

- Establish a clear vision for reform
- Identify priorities aligned with reform goals
- Motivate staff, learners and the community
- Engage stakeholders
- Communicate with teachers, parents and the community
- Build a collaborative culture:
 - Foster an environment for sharing best practices
 - Support collective action towards improvement
- School culture: Including factors such as safety, discipline and collaboration
- Community engagement and support: Engage parents and the community in education
- Communication strategies: Effectively communicate reform goals and processes
- Adaptability to change: Flexibility in implementing new curricula and teaching methods
- Monitoring and evaluation mechanisms: Assess the effectiveness of reforms

Learner-centered considerations

- Learning needs and styles: Addressing diverse learning needs
- Special educational needs: Accommodating learners with disabilities
- Implementing strategies to reduce achievement gaps

External influences

- International aid and partnerships: Support from global organizations and donors
- Global educational trends and standards: Impact of international best practices
- Technological advances: Impact of digital tools on education delivery

6. Appendix 6: Selected Sample

Sample Schools in the “Study of School Readiness and Its Effective Leadership in Light of the Developed Curricula in Lebanon”

School name	School number	Educational sector	Governate
Future Public Mixed School	15	public	Beirut
Al-Mufti Al-Shaheed Hassan Khaled Mixed Secondary Public School - (Hawd Al-Wilaya)	19	public	Beirut
Al Irshad Mixed Public School	26	public	Beirut
Al-Basta Second Mixed Intermediate School	29	public	Beirut
	47	public	Beirut
President Rene Moawad Mixed Public High School	56	public	Beirut
St. Mansour-Sisters of Charity	5008	private -no tuition	Beirut
Ashrafieh– AL Hikmah	7003	private with tuition	Beirut
Saint Charles Sisters of Charity	7012	private with tuition	Beirut
Sisters of St. Joseph the Apparition	7035	private with tuition	Beirut
Mar Elias Batina Secondary School	7051	private with tuition	Beirut
La Fontaine	7057	private with tuition	Beirut
AL Iqbal Kindergarten	7058	private with tuition	Beirut
Islamic Culture Secondary School	7070	private with tuition	Beirut
Margaret Mary of Franciscan Sisters	7094	private with tuition	Beirut
Khalid Bin Al Waleed Secondary School	7097	private with tuition	Beirut
Modern International High School	7127	private with tuition	Beirut
Beirut High School	8126	private with tuition	Beirut
Educator Edward Dou Ghadir Public School	133	public	Mount Lebanon (suburbs)
St. Rita 's -Morning School	7367	private with tuition	Mount Lebanon (suburbs)
Our Lady of Louaize	7380	private with tuition	Mount Lebanon (suburbs)

School name	School number	Educational sector	Governate
Smart Ville	8845	private with tuition	Mount Lebanon (suburbs)
Sin El Fil Secondary School - English Branch	67	public	Mount Lebanon (suburbs)
Al-Akhtal Al-Sagheer Secondary Public School for Boys	93	public	Mount Lebanon (suburbs)
Al-Dekwaneh Mixed Intermediate Public School	98	public	Mount Lebanon (suburbs)
Antelias Secondary Public School	142	public	Mount Lebanon (suburbs)
Aqabat Beyakut Mixed Public School	150	public	Mount Lebanon (suburbs)
Mesrobian For Armenian Catholics	5028	private -no tuition	Mount Lebanon (suburbs)
Wahan Tekayan	7144	private with tuition	Mount Lebanon (suburbs)
Modern Science Palace for Education	7148	private with tuition	Mount Lebanon (suburbs)
Citizen's School	7151	private with tuition	Mount Lebanon (suburbs)
Charity	7239	private with tuition	Mount Lebanon (suburbs)
Modern Lebanese Institution	7246	private with tuition	Mount Lebanon (suburbs)
Eastwood International School	7258	private with tuition	Mount Lebanon (suburbs)
Sisters of the Cross	7395	private with tuition	Mount Lebanon (suburbs)
National Science House	8524	private with tuition	Mount Lebanon (suburbs)
Larissa Kindergarten School	8623	private with tuition	Mount Lebanon (suburbs)
EPI	8674	private with tuition	Mount Lebanon (suburbs)

School name	School number	Educational sector	Governate
Armenian Central School	8750	private with tuition	Mount Lebanon (suburbs)
Martyr Abdul Karim Al Khalil Intermediate Public School	90	public	Mount Lebanon (suburbs)
Burj Al-Barajneh Secondary Public School for Girls	112	public	Mount Lebanon (suburbs)
Burj Al-Barajneh First Public School for Boys	117	public	Mount Lebanon (suburbs)
Ghobeiry Secondary Public School for Girls	1536	public	Mount Lebanon (suburbs)
Ibn Khaldoun Elementary School	5051	private -no tuition	Mount Lebanon (suburbs)
Saint Maximus Catholic School	5070	private -no tuition	Mount Lebanon (suburbs)
National Success School	5085	private -no tuition	Mount Lebanon (suburbs)
Union School	5450	private -no tuition	Mount Lebanon (suburbs)
Al Hadi	5517	private -no tuition	Mount Lebanon (suburbs)
Al Watan Al Mukadass - Holy Homeland	7191	private no tuition	Mount Lebanon (suburbs)
New Scientific - Al-Ghobeiry	7202	private with tuition	Mount Lebanon (suburbs)
Al Nasser	7220	private with tuition	Mount Lebanon (suburbs)
Our Lady of Salvation for the Salvationist Nuns	7288	private with tuition	Mount Lebanon (suburbs)
Green Land High School	7307	private with tuition	Mount Lebanon (suburbs)
Lebanese International	7321	private with tuition	Mount Lebanon (suburbs)
Rawdat Al Iman	7325	private with tuition	Mount Lebanon (suburbs)

School name	School number	Educational sector	Governate
Hassan Kamel Al Sabbah	7335	private with tuition	Mount Lebanon (suburbs)
Al-Mustafa Secondary morning schedule	7343	private with tuition	Mount Lebanon (suburbs)
Al-Najah National High School	8262	private with tuition	Mount Lebanon (suburbs)
Beirut National	8284	private with tuition	Mount Lebanon (suburbs)
Al Ameer High School	8324	private with tuition	Mount Lebanon (suburbs)
Lycée Planet	8348	private with tuition	Mount Lebanon (suburbs)
High School for the Deaf	8407	private with tuition	Mount Lebanon (suburbs)
Phoenix International School	8552	private with tuition	Mount Lebanon (suburbs)
Our Lady High School - Antonine Sisters Kfarshima	8590	private with tuition	Mount Lebanon (suburbs)
Beirut International School	8761	private with tuition	Mount Lebanon (suburbs)
Al Abbas International High School	8829	private with tuition	Mount Lebanon (suburbs)
Al Karama Elementary School	5580	private -no tuition	Mount Lebanon (suburbs)
Qasr Al-Sanobar Modern Secondary School	7358	private with tuition	Mount Lebanon (suburbs)

School Name	School Number	Educational Sector	Governate
Al Bayan	7362	private with tuition	Mount Lebanon (suburbs)
Mabarar Al - Imam Al-Khoei Secondary School	7407	private with tuition	Mount Lebanon (suburbs)

School Name	School Number	Educational Sector	Governate
Al Ghazali High School	7417	private with tuition	Mount Lebanon (suburbs)
New Century	8054	private with tuition	Mount Lebanon (suburbs)
Issa School	8134	private with tuition	Mount Lebanon (suburbs)
Bayader Aramoun	8136	private with tuition	Mount Lebanon (suburbs)
Panda Play School	8399	private with tuition	Mount Lebanon (suburbs)
Harat Al Nehme Mixed Public School	163	public	Mount Lebanon (suburbs)
Al Karama Mixed Intermediate School	9512	UNRWA private	Mount Lebanon (suburbs)
Jubail Fourth Mixed Public School	169	public	Mount Lebanon (except suburbs)
Stephan Joan Assi Mixed Public School	180	public	Mount Lebanon (except suburbs)
Ehmej Secondary Public School	1464	public	Mount Lebanon (except suburbs)
Lebanon's Girls' High School	7437	private with tuition	Mount Lebanon (except suburbs)
Rasoul Al Mahaba Secondary School	8589	private with tuition	Mount Lebanon (except suburbs)
Ghazir Mixed Secondary Public School	209	public	Mount Lebanon (except suburbs)
Al Kfour Mixed Public School	212	public	Mount Lebanon (except suburbs)
Sayidat al Sukhur for Sisters of Charity Ajaltoun	5111	private -no tuition	Mount Lebanon (except suburbs)
Sisters of the Sacred Hearts High School	7448	private with tuition	Mount Lebanon (except suburbs)

School Name	School Number	Educational Sector	Governate
Sisters of the Cross	7449	private with tuition	Mount Lebanon (except suburbs)
Btighreen Mixed Intermediate Public school	222	public	Mount Lebanon (except suburbs)
Alliwa Jamil Lahoud Public School	235	public	Mount Lebanon (except suburbs)
Mar Mansour for the Sisters of Besancon	5125	private -no tuition	Mount Lebanon (except suburbs)
Jesus and Mary School	7385	private with tuition	Mount Lebanon (except suburbs)
Wardiyyeh Sisters High School	7470	private with tuition	Mount Lebanon (except suburbs)
Intermediate Sacred Hearts	7481	private with tuition	Mount Lebanon (except suburbs)
Social Guidance of Antonine Fathers	7483	private with tuition	Mount Lebanon (except suburbs)
Btekhney Mixed Intermediate Public school	246	public	Mount Lebanon (except suburbs)
Hilaliyyeh Mixed Public School	251	public	Mount Lebanon (except suburbs)
Hammana Public Mixed School	1396	public	Mount Lebanon (except suburbs)
Maroun Abboud Secondary Public School - Aley Previously	255	public	Mount Lebanon (except suburbs)
Beysour Mixed Intermediate Public School	263	public	Mount Lebanon (except suburbs)
Mishqitee Mixed Intermediate Public school	281	public	Mount Lebanon (except suburbs)
Irfan - Ruwaisat Sofar	5140	private -no tuition	Mount Lebanon (except suburbs)
West Hill College	7518	private with tuition	Mount Lebanon (except suburbs)

School Name	School Number	Educational Sector	Governate
Al-Hidaya High School	8230	private with tuition	Mount Lebanon (except suburbs)
Barja Mixed Public School	291	public	Mount Lebanon (except suburbs)
Kafr Faqoud Mixed Intermediate Public School	302	public	Mount Lebanon (except suburbs)
Al Mukhtara Secondary Public School	313	public	Mount Lebanon (except suburbs)
Mazraat Shouf Intermediate Mixed Public School	316	public	Mount Lebanon (except suburbs)
Hasrout Mixed Intermediate Public School	342	public	Mount Lebanon (except suburbs)
Rumaili Mixed Intermediate Public School	352	public	Mount Lebanon (except suburbs)
Our Lady of Joy -Sisters of Charity - Rumaili	5421	private -no tuition	Mount Lebanon (except suburbs)
Mar Abda - Deir El Qamar	7528	private with tuition	Mount Lebanon (except suburbs)
St. Joseph Sisters of Apparition	7529	private -no tuition	Mount Lebanon (except suburbs)
Universal	7548	private with tuition	Mount Lebanon (except suburbs)
Al Sharq High School	8113	private with tuition	Mount Lebanon (except suburbs)
Hara International College	8173	private with tuition	Mount Lebanon (except suburbs)
Dawud Al Ali New High School	8314	private with tuition	Mount Lebanon (except suburbs)
Al Ataa Model High School	8454	private with tuition	Mount Lebanon (except suburbs)
Bayt Al Arz School	8673	private with tuition	Mount Lebanon (except suburbs)

School Name	School Number	Educational Sector	Governate
Novel Asprey College	8698	private with tuition	Mount Lebanon (except suburbs)
Rmeili High School	8783	private with tuition	Mount Lebanon (except suburbs)
Al Salam School	8820	private with tuition	Mount Lebanon (except suburbs)
Al-Namouzaj Public School for Girls	359	public	North
Farah Antoun Public School for Boys	375	public	North
Rawdat Al Tel - Al Zahrieh Mixed Public School	377	public	North
Andre Nahas Secondary Public School for Girls- El Mina	383	public	North
Al Tahzibiyya Public School for Girls	386	public	North
Rawdat Al Najma Mixed School	398	public	North
Al-Fayhaa Public School for Boys	403	public	North
Educational Training Public School for Girls	407	public	North
Al-Farabi Public School for Boys	429	public	North
Tripoli Al Qibba First Mixed Secondary Public School	433	public	North
Al Qibba Second Intermediate Mixed Public School	1398	public	North
Al Qibba Second Intermediate Public School for Girls	1375	public	North
Al-Tenshiya Al-Wataniyyah	5149	private -no tuition	North
Dohat Al - Adab	5167	private -no tuition	North
Al-Inaya Al- Ahliyyah	7580	private with tuition	North
Jenat al-Atfal School	8535	private with tuition	North
Al Abrar	8724	private with tuition	North
Minieh Al Maqaleh Mixed Public School	436	public	North
Minieh Mixed Public Kindergarten	437	public	North

School Name	School Number	Educational Sector	Governate
Behneen Mixed Public	453	public	North
Harf Siad Mixed Public	463	public	North
Ibn Al-Haytham Intermediate Public	473	public	North
Sir Danniyeh Secondary Public School	490	public	North
Bekaasfrin Mixed Public School	497	public	North
Harf Beit Hasna Intermediate Mixed Public School	507	public	North
Beddawi Primary Mixed Public School	1419	public	North
Bashtayel Public	1544	public	North
Taran Public Secondary School	1548	public	North
Al- Irshad Al Wataniyya Alnamuzajiyah	5408	private -no tuition	North
El Sheikh School	5706	private -no tuition	North
Al- Fajr	7600	private with tuition	North
Great Islamic Council	8229	private with tuition	North
El Farouk Intermediate School	8526	private with tuition	North
Lebanese Cedars School	8651	private with tuition	North
Megiddo Intermediate for Boys	9525	UNRWAprivate	North
Madam Badra Public for girls	675	public	North
Zgharta Public Mixed Kindergarten School	676	public	North
The Holy Family of the Sisters of Charity	5213	Private no tuition	North
Saint Joseph of the Sisters of Charity	7664	private with tuition	North
Our Lady of the Maronite Sisters of the Holy Family	7668	private with tuition	North
Fraire De La Salle	7670	private with tuition	North
Betty Nini	8157	private with tuition	North
Ras Masqa Mixed Public School	699	Public	North
Kfarhazir Public School - English	715	Public	North

School Name	School Number	Educational Sector	Governate
Kousba Public School for Boys	721	Public	North
Kefraya Mixed Public School	736	Public	North
Saint Peter's Orthodox Lycée	7683	private with tuition	North
Saint Daniel of the Maronite Sisters of the Holy Family	7691	private with tuition	North
Chekka New Mixed Public School	750	public	North
Batroun Secondary Public School - Douma Branch	780	public	North
Kalima School - St. Anthony - Chekka	7694	private with tuition	North
Ave Maria	8159	private with tuition	North
Zahle First Mixed Intermediate Public School	792	public	Bekaa
Al Moallaqa Intermediate Public School for Girls	802	public	Bekaa
Firzol Mixed Public School	808	public	Bekaa
Ablah Mixed Intermediate Public	817	public	Bekaa
Ali Al Nahri Primary Mixed Public School	820	public	Bekaa
Massa Mixed Intermediate Public	824	public	Bekaa
Majdal Anjar Public Secondary School	833	public	Bekaa
Maksi Mixed Public	838	public	Bekaa
Al Mushrifah Public School	1362	public	Bekaa
Dar Al Huda	5238	private -no tuition	Bekaa
Catholic Episcopate	5246	private -no tuition	Bekaa
St. Joseph Catholic Savior	7714	private with tuition	Bekaa
Mar Rokoz of the Antonine Fathers	7725	private with tuition	Bekaa
Saydat Al Niah Secondary School for the Sisters of the Saviors	7731	private with tuition	Bekaa
Qab Elias National	7756	private with tuition	Bekaa
American International - Riyaq	8216	private with tuition	Bekaa

School Name	School Number	Educational Sector	Governate
Modern Hope	8472	private with tuition	Bekaa
Lycée Ideal Riyaq	8572	private with tuition	Bekaa
Energetic Minds	8735	private with tuition	Bekaa
Ray of Hope School	8777	private with tuition	Bekaa
Genius Kids School	8870	private with tuition	Bekaa
Al Marj Intermediate Public	984	public	Bekaa
Lighthouse First Intermediate Public	998	public	Bekaa
Suhmor Secondary Public School	1011	public	Bekaa
Al-Suwairi Secondary Public School	1497	public	Bekaa
Makassed Islamic Charity - Mohammerah	5194	private -no tuition	Bekaa
Saint John	5325	private -no tuition	Bekaa
Al Bireh Intermediate Public School	1021	public	Bekaa
Free Canadian	5556	private -no tuition	Bekaa
Al Irfan Intermediate	7834	private with tuition	Bekaa
Al-Bayan and Al-Bunyan School	8667	private with tuition	Bekaa
Reform Mixed Intermediate Public	1047	public	South
Mieh wa Mieh Intermediate Public	1061	public	South
Maghdouche Secondary Public School	1070	public	South
Maghdouche Intermediate Public School	1071	public	South
Maghdouche Primary Public School	1072	public	South
Marwaniya Intermediate Mixed Public- English Branch	1084	public	South
Qaqaiyat al Sanawbar Intermediate Public	1096	public	South
Arab Orphan Home	5330	private -no tuition	South
Al-Nahda Educational Preparatory School	5344	private -no tuition	South
Flower Science Intermediate	7864	private with tuition	South

School Name	School Number	Educational Sector	Governate
Imam Ali High School for Education	7872	private with tuition	South
Karama School	7878	private with tuition	South
El Mahdi Schools	7980	private with tuition	South
Lycée Celestan Frené	8830	private with tuition	South
Nablus Middle School for Girls	9554	UNRWAprivate	South
Deir Al-Qasi Primary and Intermediate	9557	UNRWAprivate	South
Al Zahiriyah Mixed Primary	9558	UNRWA private	South
Hittin Primary & Intermediate for Boys	9564	UNRWA private	South
Lebaa Intermediate Public	1109	public	South
Jezzine Public Secondary School	1117	public	South
Sidon National -morning schedule	7852	private with tuition	South
Tyre Second Mixed Public	1223	public	South
Tora Intermediate Public	1232	public	South
Shehabiya Primary Public	1243	public	South
Juwaya First Intermediate Public	1248	public	South
Qana Intermediate Public	1265	public	South
Zebqin Intermediate Public	1271	public	South
Al Qulayla Public	1282	public	South
Bazouria Public Secondary School	1411	public	South
Tyre Mixed Secondary Public School- Marwaheen Branch	1540	public	South
El Mahdi Model Free School - Photos	5544	private -no tuition	South
Global Horizon High School	7929	private -no tuition	South
Jabal Amel	7930	private -no tuition	South
El Mahdi School – Tyre	8110	private -no tuition	South

School Name	School Number	Educational Sector	Governate
Al Mayadeen International School	8306	private -no tuition	South
Al Sarraj High School Siddiqin	8627	private -no tuition	South
Qaysaria Mixed Elementary	9571	UNRWAprivate	South
Deir Yassin Mixed Secondary School	9573	UNRWAprivate	South
Houmeen Al-Fawqa Intermediate Mixed	1128	public	Nabatieh
Jbaa Primary Public Mixed	1132	public	Nabatieh
Wajih Darwish Intermediate Public School (Zefta)	1141	public	Nabatieh
Al Sharqia Intermediate Public School	1159	public	Nabatieh
Mayfadoun Intermediate Public	1170	public	Nabatieh
Imam Musa al- Sadr Zutar Western Public	1595	public	Nabatieh
Al Zahra Mixed Primary School	5360	private -no tuition	Nabatieh
Model Counseling	5371	private -no tuition	Nabatieh
Imam Zain Al Abidin	5413	private no-tuition	Nabatieh
Imam Mahdi-Sharqia	7896	private with tuition	Nabatieh
Lycée Lebanese French	7988	private with tuition	Nabatieh
Al Kawthar Model	8081	private with tuition	Nabatieh
Ajyal School	8308	private with tuition	Nabatieh
Al-Sarraj High School - Al-Qusaiba	8781	private with tuition	Nabatieh
International High School	8802	private with tuition	Nabatieh
Khirbet Selm First Mixed Public School	1295	public	Nabatieh
Qalawiya Intermediate Public Tower	1299	public	Nabatieh
Bint Jbeil Public Second Mixed Intermediate	1315	public	Nabatieh
Aita El Shaab Public High School	1329	public	Nabatieh
Kafra Public High School	1449	public	Nabatieh
Al Baraem Model School	5573	private -no tuition	Nabatieh

School Name	School Number	Educational Sector	Governate
Al-Hidaya High School	7959	private with tuition	Nabatieh
Hasbaya Secondary Public School	1176	public	Nabatieh
Shuwaya Intermediate Mixed School	1179	public	Nabatieh
Al-Iman School -Arqoub	8481	private with tuition	Nabatieh
New Marjayoun Intermediate Public	1196	public	Nabatieh
Kafr Kila Public School	1506	public	Nabatieh
Isa bin Maryam (peace be upon him) free	5486	private- no tuition	Nabatieh
Orthodox Intermediate	7911	Private with tuition	Nabatieh
Issa bin Maryam (peace be upon him) Secondary School	8335	private with tuition	Nabatieh
Klayaat Mixed Public	519	public	Akkar
Educator Suleiman Aziz Al Ali Public School - Haker Al Daheri	525	public	Akkar
Halba Public Mixed Kindergarten	531	public	Akkar
Sheikh Mohammed Mixed Public	534	public	Akkar
Dr. Yaqoub Al Sarraf Public School	541	public	Akkar
Wadi Jamus Mixed Public	561	public	Akkar
Al-Fadel Public intermediate - Ramah	572	public	Akkar
Bireh Mixed Public	589	public	Akkar
Al-Bireh Public High School	590	public	Akkar
Akkar al-Atiq Mixed Public	615	public	Akkar
Funaideq Mixed Public	620	public	Akkar
Oyoun el Samak Mixed Public	631	public	Akkar
Kobayat Public Kindergarten	637	public	Akkar
Al Kanisa Mixed Public	655	public	Akkar
Kafroun Mixed Public	1332	public	Akkar
Harar Public High School	1390	public	Akkar

School Name	School Number	Educational Sector	Governate
Talhamira Intermediate Public Mixed School	1409	public	Akkar
Nabeh Al Awada Public	1551	public	Akkar
Al Kawashra Public High School	1585	public	Akkar
Berqail II Public English Branch	1610	public	Akkar
Wata Meshmish II Public	1618	public	Akkar
Fenaideq Public High School - Qurna Branch	1622	public	Akkar
Eastern Wisdom	5185	private -no tuition	Akkar
Makassed Islamic Charity - Beit Ayoub	5204	private -no tuition	Akkar
Al Fares Al Saghir School (formerly Imam Musa Al-Sadr School)	5447	private -no tuition	Akkar
Al Farouq Free	5505	private -no tuition	Akkar
Islamic faith	7629	private with tuition	Akkar
Al-Urwa Al-Wathqa High School	7643	private with tuition	Akkar
Private Oasis	7653	private -no tuition	Akkar
AL Aman Islamic	8153	private with tuition	Akkar
Science and Faith High School	8186	private with tuition	Akkar
Islamic Jewel	8223	private with tuition	Akkar
Medium Jewel	8358	private with tuition	Akkar
Al Anwar High School - Mohammerah	8497	private with tuition	Akkar
Kids Spring	8508	private with tuition	Akkar
Tomorrow's Model Generations	8732	private with tuition	Akkar
Bahr Al Uloom High School	8733	private with tuition	Akkar
Sahlat el Ma Intermediate Public	842	public	Baalbek-Hermel
Al Sherbin Intermediate Public	851	public	Baalbek-Hermel
Bait Al Tashm Public	866	public	Baalbek-Hermel
Hermel Model Secondary Public School	1473	public	Baalbek-Hermel

School Name	School Number	Educational Sector	Governate
Labwe Intermediate Public	869	public	Baalbek-Hermel
Arsal First Mixed Intermediate	875	public	Baalbek-Hermel
Arsal Third Public Intermediate	878	public	Baalbek-Hermel
Al Ain Intermediate Public	880	public	Baalbek-Hermel
New Intermediate Mixed Public	884	public	Baalbek-Hermel
Ras Baalbek Public Secondary School	887	public	Baalbek-Hermel
Zaytoun Intermediate Public	894	public	Baalbek-Hermel
Flawi Mixed Intermediate Public	917	public	Baalbek-Hermel
Nabil Adeeb Suleiman Mixed High School	967	public	Baalbek-Hermel
Al Amjad	5110	private -no tuition	Baalbek-Hermel
Lebanese Al Tajhiz	5265	private -no tuition	Baalbek-Hermel
Modern Education	5274	private -no tuition	Baalbek-Hermel
Saydit el Burj of the Maronite Sisters of the Holy Family	5285	private -no tuition	Baalbek-Hermel
Al-Mahdi Model Currently (formerly New Generation)	5425	private -no tuition	Baalbek-Hermel
Mahdi Model Free - Shmistar (formerly Tawjih)	5460	private -no tuition	Baalbek-Hermel
Al Tajhiz Lebanese Intermediate	7764	private with tuition	Baalbek-Hermel
Sheikh Mohammed Yaqoub High School	8065	private with tuition	Baalbek-Hermel
Doha Al Adab	8401	private with tuition	Baalbek-Hermel
Al-Qaim High School	8475	private with tuition	Baalbek-Hermel
Al Ghadeer High School	8583	private with tuition	Baalbek-Hermel
Saydit el Burj - of the Sisters of the Holy Family Dayr Al Ahmar	8611	private with tuition	Baalbek-Hermel
Al Maram High School	8660	private with tuition	Baalbek-Hermel
Peaks High School	8743	private with tuition	Baalbek-Hermel
New Dar Al Hanan	8831	private with tuition	Baalbek-Hermel

School Name	School Number	Educational Sector	Governate
Jeel Salam Schools	8867	private with tuition	Baalbek-Hermel

Distribution of Schools Participating in the Study on School Readiness and Effective Leadership in the Light of the Developed Curricula in Lebanon

Education Sector	Beirut	Mount Lebanon (Suburbs)	Mount Lebanon (Excluding Suburbs)	North	Bekaa	South	Nabatieh	Akkar	Baalbek-Hermel	Total
Public	8	11	18	35	13	15	16	20	11	147
Private Free	1	4	4	6	3	1	6	2	3	30
Private Paid	9	33	9	13	9	7	7	6	5	98
Private UNRWA	0	1	0	1	0	2	0	0	0	4
Total	18	49	31	55	25	25	29	28	19	279

7. Appendix 7: Participating Schools-Actual Sample

Schools participating in the “Study of School Readiness and Its Effective Leadership in Light of the Developed Curricula in Lebanon”

School name	School number	Educational sector	Governate
Future Public Mixed School	15	public	Beirut
Al-Mufti Al-Shaheed Hassan Khaled Mixed Secondary Public School - (Hawd Al-Wilaya)	19	public	Beirut
Al Irshad Mixed Public School	26	public	Beirut
Al-Basta Second Mixed Intermediate School	29	public	Beirut
	47	public	Beirut
President Rene Moawad Mixed Public High School	56	public	Beirut
St. Mansour-Sisters of Charity	5008	private -no tuition	Beirut
Ashrafieh– AL Hikmah	7003	private with tuition	Beirut
Saint Charles Sisters of Charity	7012	private with tuition	Beirut
Sisters of St. Joseph the Apparition	7035	private with tuition	Beirut
Mar Elias Batina Secondary School	7051	private with tuition	Beirut
La Fontaine	7057	private with tuition	Beirut
Margaret Mary of Franciscan Sisters	7094	private with tuition	Beirut
Khalid Bin Al Waleed Secondary School	7097	private with tuition	Beirut
Modern International High School	7127	private with tuition	Beirut
Beirut High School	8126	private with tuition	Beirut
St. Rita 's -Morning School	7367	private with tuition	Mount Lebanon (suburbs)
Our Lady of Louaize	7380	private with tuition	Mount Lebanon (suburbs)
Sin El Fil Secondary School - English Branch	67	public	Mount Lebanon (suburbs)
Al-Akhtal Al-Sagheer Secondary Public School for Boys	93	public	Mount Lebanon (suburbs)
Al-Dekwaneh Mixed Intermediate Public School	98	public	Mount Lebanon (suburbs)
Antelias Secondary Public School	142	public	Mount Lebanon (suburbs)

School name	School number	Educational sector	Governate
Aqabat Beyakut Mixed Public School	150	public	Mount Lebanon (suburbs)
Wahan Tekayan	7144	private with tuition	Mount Lebanon (suburbs)
Modern Science Palace for Education	7148	private with tuition	Mount Lebanon (suburbs)
Citizen's School	7151	private with tuition	Mount Lebanon (suburbs)
Charity	7239	private with tuition	Mount Lebanon (suburbs)
Modern Lebanese Institution	7246	private with tuition	Mount Lebanon (suburbs)
Eastwood International School	7258	private with tuition	Mount Lebanon (suburbs)
Sisters of the Cross	7395	private with tuition	Mount Lebanon (suburbs)
EPI	8674	private with tuition	Mount Lebanon (suburbs)
Armenian Central School	8750	private with tuition	Mount Lebanon (suburbs)
Martyr Abdul Karim Al Khalil Intermediate Public School	90	public	Mount Lebanon (suburbs)
Burj Al-Barajneh Secondary Public School for Girls	112	public	Mount Lebanon (suburbs)
Burj Al-Barajneh First Public School for Boys	117	public	Mount Lebanon (suburbs)
Ghobeiry Secondary Public School for Girls	1536	public	Mount Lebanon (suburbs)
Ibn Khaldoun Elementary School	5051	private -no tuition	Mount Lebanon (suburbs)
National Success School	5085	private -no tuition	Mount Lebanon (suburbs)
Al Hadi	5517	private -no tuition	Mount Lebanon (suburbs)
Al Watan Al Mukadass - Holy Homeland	7191	private no tuition	Mount Lebanon (suburbs)
Al Nasser	7220	private with tuition	Mount Lebanon (suburbs)
Our Lady of Salvation for the Salvationist Nuns	7288	private with tuition	Mount Lebanon (suburbs)
Rawdat Al Iman	7325	private with tuition	Mount Lebanon (suburbs)
Al-Mustafa Secondary morning schedule	7343	private with tuition	Mount Lebanon (suburbs)
Al-Najah National High School	8262	private with tuition	Mount Lebanon (suburbs)
Al Ameer High School	8324	private with tuition	Mount Lebanon (suburbs)

School name	School number	Educational sector	Governate
Lycée Planet	8348	private with tuition	Mount Lebanon (suburbs)
High School for the Deaf	8407	private with tuition	Mount Lebanon (suburbs)
Phoenix International School	8552	private with tuition	Mount Lebanon (suburbs)
Our Lady High School - Antonine Sisters Kfarshima	8590	private with tuition	Mount Lebanon (suburbs)
Beirut International School	8761	private with tuition	Mount Lebanon (suburbs)
Al Abbas International High School	8829	private with tuition	Mount Lebanon (suburbs)
Al Karama Elementary School	5580	private -no tuition	Mount Lebanon (suburbs)
Qasr Al-Sanobar Modern Secondary School	7358	private with tuition	Mount Lebanon (suburbs)

School name	School number	Educational sector	Governate
Mabarat Al -Imam Al-Khoei Secondary School	7407	private with tuition	Mount Lebanon (suburbs)
Bayader Aramoun	8136	private with tuition	Mount Lebanon (suburbs)
Panda Play School	8399	private with tuition	Mount Lebanon (suburbs)
Harat Al Nehme Mixed Public School	163	public	Mount Lebanon (suburbs)
Al Karama Mixed Intermediate School	9512	UNRWA private	Mount Lebanon (suburbs)
Jubail Fourth Mixed Public School	169	public	Mount Lebanon (except suburbs)
Stephan Joan Assi Mixed Public School	180	public	Mount Lebanon (except suburbs)
Ehmej Secondary Public School	1464	public	Mount Lebanon (except suburbs)
Ghazir Mixed Secondary Public School	209	public	Mount Lebanon (except suburbs)
Al Kfour Mixed Public School	212	public	Mount Lebanon (except suburbs)
Sayidat al Sukhur for Sisters of Charity Ajaltoun	5111	private -no tuition	Mount Lebanon (except suburbs)
Sisters of the Sacred Hearts High School	7448	private with tuition	Mount Lebanon (except suburbs)
Btighreen Mixed Intermediate Public school	222	public	Mount Lebanon (except suburbs)
Alliwa Jamil Lahoud Public School	235	public	Mount Lebanon (except suburbs)

School name	School number	Educational sector	Governate
Mar Mansour of the Sisters of Besancon	5125	private -no tuition	Mount Lebanon (except suburbs)
Jesus and Mary School	7385	private with tuition	Mount Lebanon (except suburbs)
Wardiyyeh Sisters High School	7470	private with tuition	Mount Lebanon (except suburbs)
Intermediate Sacred Hearts	7481	private with tuition	Mount Lebanon (except suburbs)
Social Guidance of Antonine Fathers	7483	private with tuition	Mount Lebanon (except suburbs)
Btekhmay Mixed Intermediate Public school	246	public	Mount Lebanon (except suburbs)
Hilaliyyeh Mixed Public School	251	public	Mount Lebanon (except suburbs)
Hammana Public Mixed School	1396	public	Mount Lebanon (except suburbs)
Maroun Abboud Secondary Public School - Aley Previously	255	public	Mount Lebanon (except suburbs)
Beysour Mixed Intermediate Public School	263	public	Mount Lebanon (except suburbs)
Mishqitee Mixed Intermediate Public school	281	public	Mount Lebanon (except suburbs)
Irfan - Ruwaisat Sofar	5140	private -no tuition	Mount Lebanon (except suburbs)
West Hill College	7518	private with tuition	Mount Lebanon (except suburbs)
Barja Mixed Public School	291	public	Mount Lebanon (except suburbs)
Kafr Faqoud Mixed Intermediate Public School	302	public	Mount Lebanon (except suburbs)
Al Mukhtara Secondary Public School	313	public	Mount Lebanon (except suburbs)
Mazraat Shouf Intermediate Mixed Public School	316	public	Mount Lebanon (except suburbs)
Hasrout Mixed Intermediate Public School	342	public	Mount Lebanon (except suburbs)
Our Lady of Joy -Sisters of Charity - Rumaili	5421	private -no tuition	Mount Lebanon (except suburbs)
Hara International College	8173	private with tuition	Mount Lebanon (except suburbs)
Bayt Al Arz School	8673	private with tuition	Mount Lebanon (except suburbs)
Rmeili High School	8783	private with tuition	Mount Lebanon (except suburbs)
Al-Namouzaj Public School for Girls	359	public	North
Farah Antoun Public School for Boys	375	public	North
Rawdat Al Tel - Al Zahrieh Mixed Public School	377	public	North

School name	School number	Educational sector	Governate
Andre Nahas Secondary Public School for Girls- El Mina	383	public	North
Al Tahzibiyya Public School for Girls	386	public	North
Rawdat Al Najma Mixed School	398	public	North
Al-Fayhaa Public School for Boys	403	public	North
Educational Training Public School for Girls	407	public	North
Al-Farabi Public School for Boys	429	public	North
Tripoli Al Qibba First Mixed Secondary Public School	433	public	North
Al Qibba Second Intermediate Mixed Public School	1398	public	North
Al Qibba Second Intermediate Public School for Girls	1375	public	North
Al-Tenshiya Al-Wataniyyah	5149	private -no tuition	North
Dohat Al - Adab	5167	private -no tuition	North
Al-Inaya Al- Ahliyyah	7580	private with tuition	North
Jenat al-Atfal School	8535	private with tuition	North
Al Abrar	8724	private with tuition	North
Minieh Al Maqaleh Mixed Public School	436	public	North
Minieh Mixed Public Kindergarten	437	public	North
Behneen Mixed Public	453	public	North
Harf Siad Mixed Public	463	public	North
Ibn Al-Haytham Intermediate Public	473	public	North
Sir Danniyeh Secondary Public School	490	public	North
Bekaasfrin Mixed Public School	497	public	North
Harf Beit Hasna Intermediate Mixed Public School	507	public	North
Beddawi Primary Mixed Public School	1419	public	North
Bashtayel Public	1544	public	North
Taran Public Secondary School	1548	public	North
Al- Irshad Al Wataniyya Alnamuzajiyah	5408	private -no tuition	North
El Sheikh School	5706	private -no tuition	North
El Farouk Intermediate School	8526	private with tuition	North
Lebanese Cedars School	8651	private with tuition	North
Megiddo Intermediate for Boys	9525	UNRWA private	North
Madam Badra Public for girls	675	public	North
Zgharta Public Mixed Kindergarten School	676	public	North

School name	School number	Educational sector	Governate
The Holy Family of the Sisters of Charity	5213	Private no tuition	North
Saint Joseph of the Sisters of Charity	7664	private with tuition	North
Our Lady of the Maronite Sisters of the Holy Family	7668	private with tuition	North
Fraire De La Salle	7670	private with tuition	North
Ras Masqa Mixed Public School	699	Public	North
Kfarhazir Public School - English	715	Public	North
Kousba Public School for Boys	721	Public	North
Kefraya Mixed Public School	736	Public	North
Saint Peter's Orthodox Lycée	7683	private with tuition	North
Saint Daniel of the Maronite Sisters of the Holy Family	7691	private with tuition	North
Chekka New Mixed Public School	750	public	North
Batroun Secondary Public School - Douma Branch	780	public	North
Kalima School - St. Anthony - Chekka	7694	private with tuition	North
Ave Maria	8159	private with tuition	North
Zahle First Mixed Intermediate Public School	792	public	Bekaa
Al Moallaqa Intermediate Public School for Girls	802	public	Bekaa
Firzol Mixed Public School	808	public	Bekaa
Ali Al Nahri Primary Mixed Public School	820	public	Bekaa
Massa Mixed Intermediate Public	824	public	Bekaa
Majdal Anjar Public Secondary School	833	public	Bekaa
Maksi Mixed Public	838	public	Bekaa
Al Mushrifah Public School	1362	public	Bekaa
Catholic Episcopate	5246	private -no tuition	Bekaa
St. Joseph Catholic Savior	7714	private with tuition	Bekaa
Mar Rokoz of the Antonine Fathers	7725	private with tuition	Bekaa
Qab Elias National	7756	private with tuition	Bekaa
Modern Hope	8472	private with tuition	Bekaa
Lycée Ideal Riyaq	8572	private with tuition	Bekaa
Energetic Minds	8735	private with tuition	Bekaa
Ray of Hope School	8777	private with tuition	Bekaa

School name	School number	Educational sector	Governate
Al Marj Intermediate Public	984	public	Bekaa
Lighthouse First Intermediate Public	998	public	Bekaa
Suhmor Secondary Public School	1011	public	Bekaa
Al-Suwairi Secondary Public School	1497	public	Bekaa
Saint John	5325	private -no tuition	Bekaa
Al Bireh Intermediate Public School	1021	public	Bekaa
Free Canadian	5556	private -no tuition	Bekaa
Al Irfan Intermediate	7834	private with tuition	Bekaa
Al-Bayan and Al-Bunyan School	8667	private with tuition	Bekaa
Reform Mixed Intermediate Public	1047	public	South
Mieh wa Mieh Intermediate Public	1061	public	South
Maghdouche Secondary Public School	1070	public	South
Maghdouche Intermediate Public School	1071	public	South
Maghdouche Primary Public School	1072	public	South
Marwaniya Intermediate Mixed Public- English Branch	1084	public	South
Arab Orphan Home	5330	private -no tuition	South
Flower Science Intermediate	7864	private with tuition	South
Karama School	7878	private with tuition	South
Nablus Middle School for Girls	9554	UNRWA private	South
Hittin Primary & Intermediate for Boys	9564	UNRWA private	South
Lebaa Intermediate Public	1109	public	South
Jezzine Public Secondary School	1117	public	South
Sidon National -morning schedule	7852	private with tuition	South
Tyre Second Mixed Public	1223	public	South
Shehabiya Primary Public	1243	public	South
Juwaya First Intermediate Public	1248	public	South
Qana Intermediate Public	1265	public	South
Zebqin Intermediate Public	1271	public	South
Bazouria Public Secondary School	1411	public	South
Tyre Mixed Secondary Public School- Marwaheen Branch	1540	public	South
El Mahdi Model Free School - Photos	5544	private -no tuition	South

School name	School number	Educational sector	Governate
Global Horizon High School	7929	private -no tuition	South
Jabal Amel	7930	private -no tuition	South
Al Mayadeen International School	8306	private -no tuition	South
Al Sarraj High School Siddiqin	8627	private -no tuition	South
Houmeen Al-Fawqa Intermediate Mixed	1128	public	Nabatieh
Jbaa Primary Public Mixed Public	1132	public	Nabatieh
Wajih Darwish Intermediate Public School (Zefta)	1141	public	Nabatieh
Al Sharqia Intermediate Public School	1159	public	Nabatieh
Mayfadoun Intermediate Public	1170	public	Nabatieh
Imam Musa al- Sadr Zutar Western Public	1595	public	Nabatieh
Al Zahra Mixed Primary School	5360	private -no tuition	Nabatieh
Model Counseling	5371	private -no tuition	Nabatieh
Imam Zain Al Abidin	5413	private no-tuition	Nabatieh
Al Kawthar Model	8081	private with tuition	Nabatieh
Ajyal School	8308	private with tuition	Nabatieh
Al-Sarraj High School - Al-Qusaiba	8781	private with tuition	Nabatieh
International High School	8802	private with tuition	Nabatieh
Khirbet Selm First Mixed Public School	1295	public	Nabatieh
Qalawiya Intermediate Public Tower	1299	public	Nabatieh
Bint Jbeil Public Second Mixed Intermediate	1315	public	Nabatieh
Aita El Shaab Public High School	1329	public	Nabatieh
Kafra Public High School	1449	public	Nabatieh
Al Baraem Model School	5573	private -no tuition	Nabatieh
Al-Hidaya High School	7959	private with tuition	Nabatieh
Hasbaya Secondary Public School	1176	public	Nabatieh
Shuwaya Intermediate Mixed School	1179	public	Nabatieh
Al-Iman School -Arqoub	8481	private with tuition	Nabatieh
New Marjayoun Intermediate Public	1196	Public	Nabatieh
Kafr Kila Public School	1506	public	Nabatieh
Isa bin Maryam (peace be upon him) free	5486	private no tuition	Nabatieh

School name	School number	Educational sector	Governate
Orthodox Intermediate	7911	Private with tuition	Nabatieh
Klayaat Mixed Public	519	public	Akkar
Educator Suleiman Aziz Al Ali Public School - Haker Al Daheri	525	public	Akkar
Halba Public Mixed Kindergarten	531	public	Akkar
Sheikh Mohammed Mixed Public	534	public	Akkar
Wadi Jamus Mixed Public	561	public	Akkar
Al-Fadel Public intermediate - Ramah	572	public	Akkar
Bireh Mixed Public	589	public	Akkar
Al-Bireh Public High School	590	public	Akkar
Akkar al-Atiq Mixed Public	615	public	Akkar
Funaideq Mixed Public	620	public	Akkar
Oyoun el Samak Mixed Public	631	public	Akkar
Kobayat Public Kindergarten	637	public	Akkar
Al Kanisa Mixed Public	655	public	Akkar
Kafroun Mixed Public	1332	public	Akkar
Harar Public High School	1390	public	Akkar
Nabeh Al Awada Public	1551	public	Akkar
Al Kawashra Public High School	1585	public	Akkar
Berqail II Public English Branch	1610	public	Akkar
Wata Meshmish II Public	1618	public	Akkar
Fenaideq Public High School - Qurna Branch	1622	public	Akkar
Makassed Islamic Charity - Beit Ayoub	5204	private -no tuition	Akkar
Al Fares Al Saghir School (formerly Aman Musa Al-Sadr School)	5447	private -no tuition	Akkar
Islamic Faith	7629	private with tuition	Akkar
Private Oasis	7653	private -no tuition	Akkar
AL Aman Islamic	8153	private with tuition	Akkar
Islamic Jewel	8223	private with tuition	Akkar
Al Anwar High School - Mohammerah	8497	private with tuition	Akkar
Bahr Al Uloom High School	8733	private with tuition	Akkar
Sahlat el Ma Intermediate Public	842	public	Baalbek-Hermel
El Sherbin Intermediate Public	851	public	Baalbek-Hermel
Bait Al Tashm Public	866	public	Baalbek-Hermel
Hermel Model Secondary Public School	1473	public	Baalbek-Hermel
Labwe Intermediate Public	869	public	Baalbek-Hermel

School name	School number	Educational sector	Governate
Arsal First Mixed Intermediate	875	public	Baalbek-Hermel
Al Ain Intermediate Public	880	public	Baalbek-Hermel
New Intermediate Mixed Public	884	public	Baalbek-Hermel
Ras Baalbek Public Secondary School	887	public	Baalbek-Hermel
Zaytoun Intermediate Public	894	public	Baalbek-Hermel
Flawi Mixed Intermediate Public	917	public	Baalbek-Hermel
Modern Education	5274	private -no tuition	Baalbek-Hermel
Saydit el Burj of the Maronite Sisters of the Holy Family	5285	private -no tuition	Baalbek-Hermel
Mahdi Model Free - Shmistar (formerly Tawjih)	5460	private -no tuition	Baalbek-Hermel
Sheikh Mohammed Yaqoub High School	8065	private with tuition	Baalbek-Hermel
Al-Qaim High School	8475	private with tuition	Baalbek-Hermel
Al Maram High School	8660	private with tuition	Baalbek-Hermel
Peaks High School	8743	private with tuition	Baalbek-Hermel
Jeel Salam Schools	8867	private with tuition	Baalbek-Hermel

Distribution of participating schools in the study of school readiness and its effective leadership in the light of the developed curricula in Lebanon

Educational Sector	Beirut	Mount Lebanon (suburbs)	Mount Lebanon (except suburbs)	North	Bekaa	South	Nabatiyeh	Akkar	Baalbek Hermel	Total
Public	8	11	18	35	13	15	16	20	11	147
Private no tuition	1	4	4	6	3	1	6	2	3	30
Private with tuition	9	33	9	13	9	7	7	6	5	98
UNRWA Private		1		1		2				4
Total	18	49	31	55	25	25	29	28	19	279

8. Appendix 8: Letter from the President of the Center for Educational Research and Development to the Director General of Education about the Research Tools

الجمهورية اللبنانية
المركز التربوي للبحوث والإتماء



جانب المدير العام للتربية

رئيس المركز
١٩٨٨
١١/٢٤

١٢٤ - ٢٠١٠

الموضوع: إعداد دراسة بعنوان 'جهازية المدرسة وقابليتها الفعالة في ضوء المناهج المطورة'.

تحية طيبة وبعد،

يقوم المركز التربوي للبحوث والإتماء بإعداد دراسة بعنوان 'جهازية المدرسة وقابليتها الفعالة في ضوء المناهج المطورة'، والتي تهدف إلى تقييم جهازية المدارس الرسمية والخاصة لتطبيق المناهج المطورة التي نحن بصددتها، مع التركيز على دور القيادة المدرسية في تسهيل هذه العملية وضمان نجاحها.

وإزاء أهمية الاعتماد على المعطيات الميدانية، تم إعداد أربعة استبيانات إلكترونية Google form موجهة لمديري المدارس، النظراء، المنسقين، والمعلمين.

لذا نرفع إلى مساعدكم هذا الكتاب لطلب الموافقة على إرسال الاستبيانات إلى ٢٥٠ مدرسة تم اختيارها ضمن العينة الممثلة للمدارس الرسمية والخاصة التي تم تحديدها بالتنسيق مع مديريكم، وذلك خلال الفترة الممتدة من ١٢ إلى ٢٥ تشرين الثاني ٢٠٢٤.

كما سيقيم الخبراء المسؤولون عن الدراسة بإجراء مقابلات مع مساعدكم ومع مديري الإدارات وجهاز الإرشاد والتوجيه، في الفترة بين ١١ و ٢٩ تشرين الثاني ٢٠٢٤، للتفصيل بتحديد موعد المقابلة.

كذلك الأمر، سيقيم الخبراء بتنفيذ مجموعة بؤرية Focus Group مع عينة من المتعلمين والمنسقين في الفترة ذاتها.

نشكركم على تعاونكم الدائم والمميز

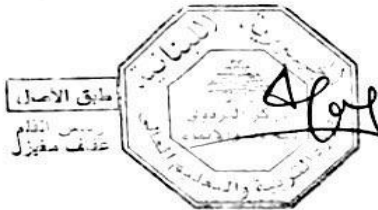
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رئيسة للمركز التربوي للبحوث والإتماء

بالتكليف

ص.ح

البريد الإلكتروني: hiam.assad@cedp.org



hrp-178

صندوق البريد: ٥٥٢٦٤ سن الفيل - لبنان
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البريد الإلكتروني: president@cedp.org

10. Appendix 10: The Four Questionnaires (Principal – Supervisor – Coordinator – Teacher)

First: The Questionnaire Directed to the School Principal

Title: A Questionnaire on "School Readiness and Effective Leadership in Light of the Developed Curricula in Lebanon"

Target Group: Principal

Dear Principal,

The Center for Educational Research and Development is conducting a study on the human and material needs of schools in Lebanon identifying the level of readiness to implement the developed curricula with a focus on the role of school leadership in facilitating this process and ensuring quality education. This questionnaire constitutes an essential part of this study.

We kindly ask for your cooperation in filling out the questionnaire accurately and objectively in alignment with your qualifications, experiences, and professional needs. Please note that the findings of this questionnaire will only be used for scientific research purposes and are confidential and official.

Personal Information:

1. **Name (optional):**
2. **Age (exact age must be specified):**
3. **Gender: Male ☐ Female ☐**

4.What is your job status?

a. In Public sector

Duly appointed (Official Principal)	Principal by interim interviewed by the school management eligibility testing committee	Principal by interim not interviewed by the school management eligibility committee yet

b. In Private sector

Duly appointed (Official Principal)	Principal by interim

5.What is the highest (academic or technical degree) obtained?

Please clarify its classification (Teacher Pre and In-service Training College /Baccalaureate/ Technical Baccalaureate / B.A/ B.A (pedagogical degree) Master's Degree / Doctorate.

Specify

6.Years of experience in the educational field:

0-5 years	6-10 years	11-15 years	16-20years	21-25 years	More than 25 years

7.Years of experience in administrative work

0 -5 years	6-10 years	11-15 years	16-20 years	21-25 years	More than 25 years

8. School type:

Public	Private: Tuition free	Private: Tuition is not free	UNRWA

9.Stages of education in school:

Kindergarten	Basic Education			Secondary Education
	Elementary	Intermediate		
	Cycle 1	Cycle 2	Cycle 3	

10. Region:

Beirut	Mount Lebanon Suburbs	Mount Lebanon (excluding Suburbs)	North	Bekaa	South	Nabatieh	Akkar	Baalbek-Hermel

Section One: Human Resources in School

Please answer the following questions (from "1" to "9" inclusive) using the exact numbers for each job title, and carefully read the entire sentence to avoid calculation errors, if possible. Additionally, ensure that the number in box "1" (the total number of staff in the school) equals the sum of the numbers in boxes "2," "3," "4," and "8," avoiding counting employees with multiple roles more than once. Categorize them under the role most closely aligned with their primary function, as specified in the related questions.

Question number	Job Title	Number (starts from zero)
1	What is the total number of staff in the school (including all job categories/everyone working in the school ?	...
2	Number of teaching staff in the school	...
2.1	Principal	1
2.2	General Supervisor	(0 or 1 or 2)
2.3	Supervisors (who do not teach)	...
2.4	Teachers of all job statuses (full-time, contract, etc.) including those who teach and perform other tasks ,such as supervision, coordination librarianship, or (everyone who teaches at school)	...
2.5	Coordinators (who do not teach at school and only perform coordination tasks	
2.6	School Laboratory Technicians)who(do not teach in school	...
2.7	Librarians (who do not teach at school	...
3	Number of employees in the administration (exclude those included in Question No. 1 and its subdivisions)	
3.1	Data entry employee (who does not teach in school)	
3.2	Other administrative staff (who do not teach at school)	
4	Number of technical workers (e.g. psychologists, social workers) who do not teach at school(check it all through)	
4.1	Psychotherapists	...
4.2	Social workers	...
4.3	Educational counselor	...
4.4	Otherwise, specify the number	...
5	Those working in education (including supervisors, coordinators, technicians and data entry employees (who also work in education)	...
5.1	Teachers only	
5.2	Supervisors who also teach at school	...
5.3	Coordinators who also teach at school	...
5.4	Technicians who also teach at school	...
5.5	Librarians who also teach at school	...
5.6	Data entry employees who also teach at school	
5.7	School laboratory technicians who also teach at school	
5.8	Other administrators who also teach at school	
6	How many are officially appointed (within the cadre) ? This includes the) principal, (supervisors and other job titles)	...
7	What is the number of contractual teachers with all their respective titles?	...
8	Support staff (other school staff)	
8.1	guards	...
8.2	Office boys	...

8.3	Other support staff	...
9	How many students are enrolled in the school?	...

Section Two : Overall School Readiness

1. Availability of educational tools in classrooms

a. Are white boards available in the classrooms?

	Available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)			
Cycle1- Basic Education			
Cycle 2- Basic Education			
Cycle 3- Basic Education			
Secondary Stage			

b. Are LCD projectors available in the classrooms?

	Available in all grades	Partially available in classes moved from class to class)	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1- Basic Education				
Cycle 2- Basic Education				
Cycle 3- Basic Education				
Secondary stage				

c. Do the classrooms have active boards ?

	Available	Partially available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1-Basic Education				
Cycle2- Basic Education				
Cycle3- Basic Education				
Secondary stage				

d. Are computers available in the school?

	Fully available (in all grades)	Partially available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1-Basic Education				
Cycle 2- Basic Education				
Cycle 3- Basic Education				
Secondary stage				

2. **How comfortable and durable are the chairs and tables in the classroom for everyday use?**
 - Very suitable for comfort and durability
 - Generally suitable with some minor improvements
 - Need improvement in some classes
 - Not suitable for general use
3. **Are digital educational tools (websites, online applications, etc.) used by teachers to support the educational process?**
 - Never
 - Sometimes
 - Often
 - Always
4. **What is the condition of the following items in the classroom?**

	Very good	Good	Acceptable	Poor
Lighting				
Air conditioning				
Ventilation				
Heating				
Maintenance work				

5. **Are these facilities available at school, and in what condition?**

	Available and good	Available but needs improvement	Available but not usable	Not available
Laboratories				
Library				
Playgrounds				
School club				
Lecture halls				
Meeting room				
Theater				

6. **How would you describe the readiness of the school health facilities?**

	Excellent	Good	Acceptable	Poor
cleanliness level of sanitary facilities				
The number of bathrooms is proportional to the number of students				
Accessible for people with special needs				
Full time cleaners are available				
Regular bathroom cleaning				

7. **How would you describe the availability of health and safety support facilities and services at school ?**

	Excellent	Good	Acceptable	Poor
Available first aid room				

Available medical clinic				
Regular visit of a doctor to school				
First aid training for teachers				

8. How would you describe the facilities and services provided for learners with special needs at school?

	Excellent	Good	Average	Poor
Ramps				
Elevators				
Equipped classes to meet their needs				
Special bathrooms				
Employee support service				
psychological or counselling support services				

9. How would you describe the availability of safe drinking water and sanitation systems in the school?

- Very well available
- Well available
- Insufficient
- Not available

10. How would you describe the availability of safe parking and school transport facilities for learners and teachers?

- Very well available
- Well available
- Insufficient
- Not available

11. How would you describe the availability of green spaces and natural environment around the school (parks trees, open spaces)?

- Very well available
- Well available
- Insufficient
- Not available

Section Three: Technology and Digital Infrastructure

1. How would you describe the availability of Internet and digital connectivity at school?(Internet speed and quality)

- Very well available
- Well available
- Insufficient
- Not available

2. How often do teachers use technology and digital tools in daily classroom teaching?

- They use it regularly.
- They use it sometimes.
- They rarely use it.
- They don't use it.

3. How proficient are the current cadre teachers in technological skills ?

- Experts
- Highly proficient
- Need improvement
- Not proficient

4. What technology-related training needs do you consider essential to develop your skills as a principal ?

.....

.....

5. How would you describe the availability of training and technical support for teachers when they use educational technology ?

- Very well available
- Somewhat available
- Insufficient
- Not available

6. How would you describe the availability of maintenance and updating electronic and technical devices along with their programs and applications in the school?

- Very well available
- Well available
- Insufficient
- Not available

7. How would you describe the availability of specialized technical support teams or a person specialized in dealing with technology problems in the school?

- Very well available
- Well available
- Insufficient
- Not available

8. How would you describe the availability of digital policies and cybersecurity to protect data and information in the school?

- Very well available
- Well available
- insufficient
- Not available

9. How would you describe the availability of personal electronic devices to learners ?

	None	One for each learner	One for every five learners	One for every ten learners	One for every 15 learners and above
Laptops					
Tablets					

10. Do teachers use e-learning materials?

	Always	Often	Sometimes	Never
National e-book				

Other e -Books				
Educational videos				
Interactive materials such as online interactive activities)				

11. What support does the school administration provide for the use of technology? (More than one answer may be selected).

- Motivating teachers to use technology
- Providing training for teachers on the use of technology
- Allocating time for teachers to use technology during the classroom teaching process
- Technical support is available to solve technical problems
- Providing electronic educational resources

Section Four: Leadership and Administrative Competencies

Category1: Strategic Planning and Decision Making

1. Are strategic plans designed during the school year to achieve the school's educational goals?

- Always
- Often
- Sometimes
- Never

2. To what extent are the administrative and educational bodies involved in the process of developing strategic plans in the school?

- Always
- Often
- Sometimes
- Never

3. How do you plan, manage resources, assign tasks and set priorities in your school?

- All parties participate effectively
- Some parties participate
- They are made based on the principal's personal decision
- There are no specific plans

4. What are the main areas covered by school plans? (You can choose several answers)

- Resource Management (Human and Material)
- Distribution of tasks and responsibilities
- Determining educational priorities
- Performance Evaluation and Development
- Enhancing the competencies of the educational team

5. Does the school have contingency plans for dealing with emergencies and crises?

- Always

- Often
- Sometimes
- Never

Category Two: Leadership and Administrative Competencies of the Principal

6. What leadership model do you use in school?

- Participatory leadership
- Individualized leadership
- Distributed leadership
- Other models (please specify) :

7. Are school members encouraged to innovate and use modern teaching practices in your school?

- Always and in an effective manner
- Often
- Sometimes
- Rarely

8. What is the level of involvement of the educational team in making important decisions in your school?

- They are always actively and effectively involved
- They are often involved
- Sometimes they are involved
- They are often not involved

9. How are change processes handled in the school, and what is the role of the administration in guiding and supporting the teaching staff and encouraging innovation and modern practices?

- The administration actively encourages, directs and supports innovation on a regular basis
- The administration provides good guidance and support, with some innovation
- Management provides limited support for change and innovation processes
- There is not much focus on change and innovation

10. How committed are you to professional development programs to improve your leadership and management competencies?

- Always
- Often
- Sometimes
- I don't care about professional development

11. What are the key leadership skills that you have in your school? (You may choose more than one option)

- Problem solving skills
- Effective communication
- Motivating and supporting the teaching staff
- Planning and organizing
- Change Management
- Other.....

12. What areas do you need to develop to improve your managerial and leadership performance? (You can choose more than one option)

- Decision making
- Communication with stakeholders
- Strategic planning
- Building partnerships
- Innovation in educational practices
- Other.....

Category3: Monitoring and Evaluation Operations

13. How do you evaluate the performance of teachers and administrative staff at school?

- Through regular classroom visits
- Through periodic meetings
- Through specific assessment tools
- There is no evaluation mechanism

14. Do you provide feedback and recommendations based on your evaluation of teachers?

- Always
- Often
- Sometimes
- Never

15. How does communication take place between the school administration and all concerned parties to ensure integrated efforts and achieve community support for the school?

	Communication is regular and effective	Communication is often and effective	Communication is sometimes limited	Communication is ineffective
Teachers				
Learners				
Parents				
Local community				
Supporting bodies				

16. What mechanisms are used to identify and solve potential problems in innovative ways?

- Relying on the participation of all parties
- Relying on data analysis and problems
- Interacting with them only when necessary
- There are no specific mechanisms

17. Do you make regular classroom visits to monitor the progress of the educational process in the classes and support teachers?

- Always
- Often
- Sometimes

- Never

18. How effective are you in guiding and supporting faculty to achieve educational goals?

- Very effective
- Somewhat effective
- Needs improvement
- Ineffective

19. Do you follow up on improvements or recommendations resulting from evaluations?

- Always
- Often
- Sometimes
- Rarely

20. How does the school build relationships with the local community and supporters to secure the necessary resources and support?

	It is done very efficiently	It goes well	It is done in a limited way	Not enough relationships are being built
Local community				
Supporting bodies				

21. Are support programs for struggling students implemented in your school?

- Always
- Often
- Sometimes
- Never

Category5: Future needs and expectations

22. What training needs do you think you need to enhance your leadership and management skills? (You can choose more than one option)

- Educational Leadership training
- Strategic Planning training
- Change Management Workshops
- Community Partnership Building training
- Crisis Management training
- I have no training needs

23. What are your school's needs in managing any change or keeping up with any curriculum development in the near future (You can choose more than one option)

- Financial support to secure and upgrade equipment
- Principal training
- Training for administrators
- Training for teachers
- Infrastructure development
- Strengthening partnership with the local community
- Providing modern technology

- Preparing sustainability plans
- Providing support for struggling students
- Filling in vacancies of the administrative body
- Filling in vacancies of teaching staff
- Health guidance
- Psychosocial support

24. In your opinion, what are your school's needs in terms of human and material resources in the current situation? (Open question)

.....
.....

25. What challenges do you think you might face in implementing any change or development in the school? And how do you see the possibility of overcoming them (Open question)

.....
.....

Thank you for sharing.

Your answers will contribute to making recommendations to improve education in Lebanon and ensure the successful implementation of the developed curricula.

Second : Questionnaire directed to the supervisor

Title: Questionnaire on “School Readiness and Its Effective Leadership in the Light of the Developed Curricula in Lebanon”

Target group: Supervisor

Dear Sir/Madam

The Center for Educational Research and Development is conducting a study on the human and material needs of schools in Lebanon identifying the level of readiness to implement the developed curricula with a focus on the role of school leadership in facilitating this process and ensuring quality education. This questionnaire constitutes an essential part of this study.

We kindly ask for your cooperation in filling out the questionnaire accurately and objectively in alignment with your qualifications, experiences, and professional needs. Please note that the results of this questionnaire will only be used for scientific research purposes and are confidential and official.

Personal data:

1. Age: (Exact age must be specified)

2. Gender: Male

☐

Female

☐

3. What is your job status?

Duly appointed (Officially)	Hired by contract	Outsourced	Parents Council	Paid by invoice	Donation	Otherwise specify)

4. What is the highest (academic or technical degree) obtained?

Please clarify its classification (Teacher Pre and In-service Training College /Baccalaureate/ Technical Baccalaureate / B.A /B.A (pedagogical degree) Master's Degree / Doctorate.

Specify.....

5. Years of teaching experience :

0-5 years	6-10 years	11-15 years	16-20years	21-25 years	More than 25 years

6. Years of experience in supervision :

0-5 years	6-10 years	11-15 years	16-20years	21-25 years	More than 25 years

7. School type:

Public	Private: Tuition free	Private: Tuition is not free	UNRWA

8. Region:

Beirut	Mount Lebanon Suburbs	Mount Lebanon (excluding Suburbs)	North	Bekaa	South	Nabatieh	Akkar	Baalbek-Hermel

Section One : Overall School Readiness

1. Availability of educational tools in classrooms

a. Are white boards available in the classrooms?

	Available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)			
Cycle1- Basic Education			
Cycle 2- Basic Education			
Cycle 3- Basic Education			
Secondary Stage			

b. Are LCD projectors available in the classrooms?

	Available in all grades	Partially available in classes moved from class to class	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1- Basic Education				
Cycle 2- Basic Education				
Cycle 3- Basic Education				
Secondary stage				

c. Do the classrooms have active boards ?

	Available	Partially available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1-Basic Education				
Cycle2- Basic Education				
Cycle3- Basic Education				
Secondary stage				

d. Are computers available in the school?

	Fully available (in all grades)	Partially available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1-Basic Education				
Cycle 2- Basic Education				
Cycle 3- Basic Education				
Secondary stage				

2. How comfortable and durable are the chairs and tables in the classroom for everyday use?

- Very suitable for comfort and durability
- Generally suitable with some minor improvements
- Need improvement in some classes
- Not suitable for general use

3. Are digital educational tools (websites, online applications, etc.) used by teachers to support the educational process?

- Never
- Sometimes
- Often
- Always

4. What is the condition of the following items in the classroom?

	Very good	Good	Acceptable	Poor
Lighting				
Air conditioning				
Ventilation				
Heating				
Maintenance work				

5. Are these facilities available at school, and in what condition?

	Available and good	Available but needs improvement	Available but not usable	Not available
Laboratories				
Library				
Playgrounds				
School club				
Lecture halls				
Meeting room				
Theater				

6. How would you describe the readiness of the school health facilities?

	Excellent	Good	Acceptable	Poor
cleanliness level of sanitary facilities				
The number of bathrooms is proportional to the number of students				
Accessible for people with special needs				
Full time cleaners are available				
Regular bathroom cleaning				

7. How would you describe the availability of health and safety support facilities and services at school ?

	Excellent	Good	Acceptable	Poor
Available first aid room				
Available medical clinic				
Regular visit of a doctor to school				
First aid training for teachers				

8. How would you describe the facilities and services provided for learners with special needs at school?

	Excellent	Good	Average	Poor
Ramps				
Elevators				
Equipped classes to meet their needs				
Special bathrooms				
Employee support service				
psychological or counselling support services				

9. How would you describe the availability of safe drinking water and sanitation systems in the school?

- Very well available
- Well available
- Insufficient
- Not available

10. How would you describe the availability of safe parking and school transport facilities for learners and teachers?

- Very well available
- Well available
- Insufficient
- Not available

11. How would you describe the availability of green spaces and natural environment around the school (parks trees, open spaces)?

- Very well available
- Well available
- Insufficient
- Not available

Section Two: Technology and Digital Infrastructure :

1. How would you describe the availability of Internet and digital connectivity at school? (Internet speed and quality)
 - Very well available
 - Well available
 - Insufficient
 - Not available
2. How often do teachers use technology and digital tools in daily classroom teaching?
 - They use it regularly.
 - They use it sometimes.
 - They rarely use it.
 - They don't use it.
3. How would you describe the availability of training and technical support for teachers when they use educational technology?
 - Very well available
 - Somewhat available
 - Insufficient
 - Not available
4. How would you describe the availability of maintenance and updating electronic and technical devices along with their programs and applications in the school?
 - Very well available
 - Well available
 - Insufficient
 - Not available
5. How would you describe the availability of specialized technical support teams or a person specialized in dealing with technology problems in the school?
 - Very well available
 - Well available
 - insufficient
 - Not available

6. Do teachers use e-learning materials?

	Always	Often	Sometimes	Never
National e-book				
Other e -Books				
Educational videos				
Interactive materials such as online interactive activities)				

7. What support does the school administration provide for the use of technology? (More than one answer may be selected).
 - Motivating teachers to use technology
 - Providing training for teachers on the use of technology
 - Allocating time for teachers to use technology during the classroom teaching process
 - Technical support is available to solve technical problems
 - Providing electronic educational resources

SectionThree:Leadership and Administrative Competencies :

Category1: Strategic Planning and Decision Making

- 1. Are strategic plans designed during the school year to achieve the school's educational goals?**
 - Always
 - Often
 - Sometimes
 - Never
- 7.1. To what extent are the administrative and educational bodies involved in the process of developing strategic plans in the school?**
 - Always
 - Often
 - Sometimes
 - Never
- 7.2. How do you plan, manage resources, assign tasks and set priorities in your school?**
 - All parties participate effectively
 - Some parties participate
 - They are made based on the principal's personal decision
 - There are no specific plans
- 4. What are the main areas covered by school plans? (You can choose several answers)**
 - Resource Management (Human and Material)
 - Distribution of tasks and responsibilities
 - Determining educational priorities
 - Performance Evaluation and Development
 - Enhancing the competencies of the educational team
- 5. Does the school have contingency plans for dealing with emergencies and crises?**
 - Always
 - Often
 - Sometimes
 - Never

Category Two: Leadership and Administrative Competencies of the Principal

- 6. What leadership model does the principal use in school ?**
 - Participatory leadership
 - Individualized leadership
 - Distributed leadership
 - Other models (please specify) :
- 7. Are school members encouraged to innovate and use modern teaching practices in your school?**
 - Always and in an effective manner

- Often
 - Sometimes
 - Rarely
8. What is the level of involvement of the educational team in making important decisions in your school?
- They are always actively and effectively involved
 - They are often involved
 - Sometimes they are involved
 - They are often not involved
9. How are change processes handled in the school, and what is the role of the administration in guiding and supporting the teaching staff and encouraging innovation and modern practices?
- The administration actively encourages, directs and supports innovation on a regular basis
 - The administration provides good guidance and support, with some innovation
 - Management provides limited support for change and innovation processes
 - There is not much focus on change and innovation
10. What are the key leadership skills that you have in your school? (You may choose more than one option)
- Problem solving skills
 - Effective communication
 - Motivating and supporting the teaching staff
 - Planning and organizing
 - Change Management
 - Other.....
11. What areas does the administration need to develop to improve its managerial and leadership performance? (You can choose more than one option)
- Decision making
 - Communication with stakeholders
 - Strategic planning
 - Building partnerships
 - Innovation in educational practices
 - Other.....

Category3: Monitoring and Evaluation Operations

12. How does the principal evaluate the performance of teachers and administrative staff at school?
- Through regular classroom visits
 - Through periodic meetings
 - Through specific assessment tools
 - There is no evaluation mechanism
13. Does the administration provide feedback and recommendations based on its evaluation of teachers?
- Always
 - Often
 - Sometimes
 - Never
14. How does communication take place between the school administration and all concerned parties to ensure integrated efforts and achieve community support for the school?

	Communication is regular and effective	Communication is often and effective	Communication is sometimes limited	Communication is ineffective
Teachers				
Learners				
Parents				
Local community				
Supporting bodies				

15. What mechanisms are used to identify and solve potential problems in innovative ways ?

- Relying on the participation of all parties
- Relying on data analysis and problems
- Interacting with them only when necessary
- There are no specific mechanisms

16. Does the administration make regular classroom visits to monitor the progress of the educational process in the classes and support teachers?

- Always
- Often
- Sometimes
- Never

17. How effective is the administration in guiding and supporting faculty to achieve educational goals?

- Very effective
- Somewhat effective
- Needs improvement
- Ineffective

18. Does the administration follow up on improvements or recommendations resulting from evaluations?

- Always
- Often
- Sometimes
- Rarely

19. How does the school build relationships with the local community and supporters to secure the necessary resources and support?

	It is done very efficiently	It goes well	It is done in a limited way	Not enough relationships are being built
Local community				
Supporting bodies				

20. Are support programs for struggling students implemented in your school?

- Always
- Often
- Sometimes
- Never

Category4: Future needs and expectations

21. What are your school's needs to be able to manage any change or keep up with any development process in the educational curriculum in the near future? (You can choose more than one option)

- Financial support to secure and upgrade equipment
- Training courses for the principal
- Training courses for administrators
- Training courses for teachers
- Infrastructure development
- Strengthening partnership with the local community
- Providing modern technology
- Preparing sustainability plans
- Providing support for struggling students
- Filling in vacancies in the administrative body
- Filling in vacancies of teaching staff
- Health guidance
- Psychosocial support
- Otherwise, specify.....

Thank you very much for participating.

Your answers will help provide recommendations to improve education in Lebanon and ensure the successful implementation of the developed curricula.

Third: Questionnaire directed to the coordinator

Title: Questionnaire on “School Readiness and Its Effective Leadership in the Light of the Developed Curricula in Lebanon”

Target group: Coordinators

Dear Sir/Madam

The Center for Educational Research and Development is conducting a study on the human and material needs of schools in Lebanon identifying the level of readiness to implement the developed curricula with a focus on the role of school leadership in facilitating this process and ensuring quality education. This questionnaire constitutes an essential part of this study.

We kindly ask for your cooperation in filling out the questionnaire accurately and objectively in alignment with your qualifications, experiences, and professional needs. Please note that the results of this questionnaire will only be used for scientific research purposes and are confidential and official.

Personal data:

- **Age: (Exact age must be specified)**

- **Gender: Male** ☐ **Female** ☐

- **What is your job status?**

Duly appointed (Officially)	Hired by contract	Outsourced	Parents Council	Paid by invoice	Donation	Otherwise specify)

- **What is the highest (academic or technical degree) obtained?**

Please clarify its classification (Teacher Pre and In-service Training College /Baccalaureate/ Technical Baccalaureate / B.A /B.A (pedagogical degree) Master's Degree / Doctorate.
Specify.....

- **Years of teaching experience :**

0-5 years	6-10 years	11-15 years	16-20years	21-25 years	More than 25 years

- **Years of experience in coordination:**

0-5 years	6-10 years	11-15 years	16-20years	21-25 years	More than 25 years

• **School type:**

Public	Private: Tuition free	Private: Tuition is not free	UNRWA

• **Region:**

Beirut	Mount Lebanon Suburbs	Mount Lebanon (excluding Suburbs)	North	Bekaa	South	Nabatieh	Akkar	Baalbek-Hermel

Section One : Overall School Readiness

1. Availability of educational tools in classrooms

a. Are white boards available in the classrooms?

	Available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)			
Cycle1- Basic Education			
Cycle 2- Basic Education			
Cycle 3- Basic Education			
Secondary Stage			

b. Are LCD projectors available in the classrooms?

	Available in all grades	Partially available in classes moved from class to class	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1- Basic Education				
Cycle 2- Basic Education				
Cycle 3- Basic Education				
Secondary stage				

c. Do the classrooms have active boards ?

	Available	Partially available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1-Basic Education				
Cycle2- Basic Education				
Cycle3- Basic Education				
Secondary stage				

d. Are computers available in the school?

	Fully available (in all grades)	Partially available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1-Basic Education				
Cycle 2- Basic Education				
Cycle 3- Basic Education				
Secondary stage				

2. How comfortable and durable are the chairs and tables in the classroom for everyday use?

- Very suitable for comfort and durability
- Generally suitable with some minor improvements
- Need improvement in some classes
- Not suitable for general use

3. Are digital educational tools (websites, online applications, etc.) used by teachers to support the educational process?

- Never
- Sometimes
- Often
- Always

4. What is the condition of the following items in the classroom?

	Very good	Good	Acceptable	Poor
Lighting				
Air conditioning				
Ventilation				
Heating				
Maintenance work				

5. Are these facilities available at school, and in what condition?

	Available and good	Available but needs improvement	Available but not usable	Not available
Laboratories				
Library				
Playgrounds				
School club				
Lecture halls				
Meeting room				
Theater				

6. How would you describe the readiness of the school health facilities?

	Excellent	Good	Acceptable	Poor
cleanliness level of sanitary facilities				
The number of bathrooms is proportional to the number of students				
Accessible for people with special needs				
Full time cleaners are available				
Regular bathroom cleaning				

7. How would you describe the availability of health and safety support facilities and services at school ?

	Excellent	Good	Acceptable	Poor
Available first aid room				
Available medical clinic				
Regular visit of a doctor to school				
First aid training for teachers				

8. How would you describe the facilities and services provided for learners with special needs at school?

	Excellent	Good	Average	Poor
Ramps				
Elevators				
Equipped classes to meet their needs				
Special bathrooms				
Employee support service				
psychological or counselling support services				

9. How would you describe the availability of safe drinking water and sanitation systems in the school?

- Very well available
- Well available
- Insufficient
- Not available

10. How would you describe the availability of safe parking and school transport facilities for learners and teachers?

- Very well available
- Well available
- Insufficient
- Not available

11. How would you describe the availability of green spaces and natural environment around the school (parks trees, open spaces)?

- Very well available
- Well available
- Insufficient
- Not available

Section Two: Technology and Digital Infrastructure :

- 1. How would you describe the availability of Internet and digital connectivity at school? (Internet speed and quality)**
 - Very well available
 - Well available
 - Insufficient
 - Not available
- 2. How often do teachers use technology and digital tools in daily classroom teaching?**
 - They use it regularly.
 - They use it sometimes.
 - They rarely use it.
 - They don't use it.
- 3. How proficient are the current cadre teachers in technological skills?**
 - Experts
 - Highly proficient
 - Need improvement
 - Not proficient
- 4. What technological skills are mastered by the current teaching staff?**
 - Effective use of computers
 - Development of electronic educational content
 - Use of remote learning tools
 - Analysis of educational data
 - Educational software applications
 - Communication via digital platforms
 - Integration of multimedia in education
 - Assistive technology for students with special needs
 - Other (please specify): _____
 - Do not master any.
- 5. How would you describe the availability of training and technical support for teachers when they use educational technology?**
 - Very well available
 - Somewhat available
 - Insufficient
 - Not available
- 6. How would you describe the availability of maintenance and updating electronic and technical devices along with their programs and applications in the school?**
 - Very well available
 - Well available
 - Insufficient
 - Not available
- 7. How would you describe the availability of specialized technical support teams or a person specialized in dealing with technology problems in the school?**
 - Very well available
 - Well available
 - Insufficient
 - Not available

8. Do teachers use e-learning materials?

	Always	Often	Sometimes	Never
National e-book				
Other e -Books				
Educational videos				
Interactive materials such as online interactive activities)				

9. To what extent does the school administration support the effective use of technology in classrooms?

- Very strong support
- Moderate support
- Weak support
- No support

10. What support does the school administration provide for the use of technology ? (More than one answer may be selected).

- Motivating teachers to use technology
- Providing training for teachers on the use of technology
- Allocating time for teachers to use technology during the classroom teaching process
- Technical support is available to solve technical problems
- Providing electronic educational resources

Section Three :Leadership and Administrative Competencies :

Category1: Strategic Planning and Decision Making

1. Are strategic plans designed during the school year to achieve the school's educational goals?

- Always
- Often
- Sometimes
- Never

2. To what extent are the administrative and educational bodies involved in the process of developing strategic plans in the school?

- Always
- Often
- Sometimes
- Never

3. How do you plan, manage resources, assign tasks and set priorities in your school?

- All parties participate effectively
- Some parties participate
- They are made based on the principal's personal decision
- There are no specific plans

4. What are the main areas covered by school plans? (You can choose (several answers))

- Resource Management (Human and Material)
- Distribution of tasks and responsibilities
- Determining educational priorities

- Performance Evaluation and Development
 - Enhancing the competencies of the educational team
- 5. Does the school have contingency plans for dealing with emergencies and crises?**
- Always
 - Often
 - Sometimes
 - Never

Category Two: Leadership and Administrative Competencies of the Principal

- 6. What leadership model do you use in school?**
- Participatory leadership
 - Individualized leadership
 - Distributed leadership
 - Other models (please specify) :
- 7. Are school members encouraged to innovate and use modern teaching practices in your school?**
- Always and in an effective manner
 - Often
 - Sometimes
 - Rarely
- 8. What is the level of involvement of the educational team in making important decisions in your school?**
- They are always actively and effectively involved
 - They are often involved
 - Sometimes they are involved
 - They are often not involved
- 9. How are change processes handled in the school, and what is the role of the administration in guiding and supporting the teaching staff and encouraging innovation and modern practices?**
- The administration actively encourages, directs and supports innovation on a regular basis
 - The administration provides good guidance and support, with some innovation
 - Management provides limited support for change and innovation processes
- 10. What are the key leadership skills that you have in your school? (You may choose more than one option)**
- Problem solving skills
 - Effective communication
 - Motivating and supporting the teaching staff
 - Planning and organizing
 - Change Management
 - Other.....
- 11. What areas do you think the administration needs to develop to improve its managerial and leadership performance? (You can choose more than one option)**
- Decision making
 - Communication with stakeholders
 - Strategic planning
 - Building partnerships
 - Innovation in educational practices
 - Other.....

Category3: Monitoring and Evaluation Operations

12. How is the performance of teachers and administrative staff evaluated at school?

- Through regular classroom visits
- Through periodic meetings
- Through specific assessment tools
- There is no evaluation mechanism

13. Does the administration provide feedback and recommendations based on evaluation of teachers?

- Always
- Often
- Sometimes
- Never

14. How does communication take place between the school administration and all concerned parties to ensure integrated efforts and achieve community support for the school?

	Communication is regular and effective	Communication is often and effective	Communication is sometimes limited	Communication is ineffective
Teachers				
Learners				
Parents				
Local community				
Supporting bodies				

15. What mechanisms are used to identify and solve potential problems in innovative ways ?

- Relying on the participation of all parties
- Relying on data analysis and problems
- Interacting with them only when necessary
- There are no specific mechanisms

16. Does the administration make regular classroom visits to monitor the progress of the educational process in the classes and support teachers?

- Always
- Often
- Sometimes
- Never

17. How effective is the administration in guiding and supporting faculty to achieve educational goals?

- Very effective
- Somewhat effective
- Needs improvement
- Ineffective

18. Does the administration follow up on improvements or recommendations resulting from evaluations?

- Always
- Often
- Sometimes
- Rarely

19. How does the school build relationships with the local community and supporters to secure the necessary resources and support?

	It is done very efficiently	It goes well	It is done in a limited way	Not enough relationships are being built
Local community				
Supporting bodies				

20. Are support programs for struggling students implemented in your school?

- Always
- Often
- Sometimes
- Never

Category4: Future needs and expectations

21. What are your school's needs to be able to manage any change or keep up with any development process in the educational curriculum in the near future? (You can choose more than one option)

- Financial support to secure and upgrade equipment
- Training courses for the principal
- Training courses for administrators
- Training courses for teachers
- Infrastructure development
- Strengthening partnership with the local community
- Providing modern technology
- Preparing sustainability plans
- Providing support for struggling students
- Filling in vacancies in the administrative body
- Filling in vacancies of teaching staff
- Health guidance
- Psychosocial support
- Otherwise, specify.....

Thank you very much for participating!

Your answers will help provide recommendations to improve education in Lebanon and ensure the successful implementation of the developed curricula.

Fourth : Questionnaire directed to the teacher

Title: Questionnaire on “School Readiness and Its Effective Leadership in the Light of the Developed Curricula in Lebanon”

Target group: Teachers

Dear Sir/Madam

The Center for Educational Research and Development is conducting a study on the human and material needs of schools in Lebanon identifying the level of readiness to implement the developed curricula with a focus on the role of school leadership in facilitating this process and ensuring quality education. This questionnaire constitutes an essential part of this study.

We kindly ask for your cooperation in filling out the questionnaire accurately and objectively in alignment with your qualifications, experiences, and professional needs. Please note that the results of this questionnaire will only be used for scientific research purposes and are confidential and official.

Personal data:

1. Age: (Exact age must be specified)

2. Gender: Male

☐

Female

☐

3. What is your job status?

Duly appointed (Officially)	Hired by contract	Outsourced	Parents Council	Paid by invoice	Donation	Otherwise specify)

4. What is the highest (academic or technical degree) obtained?

Please clarify its classification (Teacher Pre and In-service Training College /Baccalaureate/ Technical Baccalaureate / B.A /B.A (pedagogical degree) Master's Degree / Doctorate.

Specify.....

5. Years of teaching experience :

0-5 years	6-10 years	11-15 years	16-20years	21-25 years	More than 25 years

6. School type:

Public	Private: Tuition free	Private: Tuition is not free	UNRWA

7. Region:

Beirut	Mount Lebanon Suburbs	Mount Lebanon (excluding Suburbs)	North	Bekaa	South	Nabatieh	Akkar	Baalbek-Hermel

Section One : Overall School Readiness

1. Availability of educational tools in classrooms

a. Are white boards available in the classrooms?

	Available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)			
Cycle1- Basic Education			
Cycle 2- Basic Education			
Cycle 3- Basic Education			
Secondary Stage			

b. Are LCD projectors available in the classrooms?

	Available in all grades	Partially available in classes moved from class to class	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1- Basic Education				
Cycle 2- Basic Education				
Cycle 3- Basic Education				
Secondary stage				

c. Do the classrooms have active boards ?

	Available	Partially available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1-Basic Education				
Cycle2- Basic Education				
Cycle3- Basic Education				
Secondary stage				

d. Are computers available in the school?

	Fully available (in all grades)	Partially available	Unavailable (on request)	Unavailable
Kindergarten (Pre-Basic Education)				
Cycle1-Basic Education				
Cycle 2- Basic Education				

Cycle 3- Basic Education				
Secondary stage				

2. How comfortable and durable are the chairs and tables in the classroom for everyday use?

- Very suitable for comfort and durability
- Generally suitable with some minor improvements
- Need improvement in some classes
- Not suitable for general use

3. Are digital educational tools (websites, online applications, etc.) used by teachers to support the educational process?

- Never
- Sometimes
- Often
- Always

4. What is the condition of the following items in the classroom?

	Very good	Good	Acceptable	Poor
Lighting				
Air conditioning				
Ventilation				
Heating				
Maintenance work				

5. Are these facilities available at school, and in what condition?

	Available and good	Available but needs improvement	Available but not usable	Not available
Laboratories				
Library				
Playgrounds				
School club				
Lecture halls				
Meeting room				
Theater				

6. How would you describe the readiness of the school health facilities?

	Excellent	Good	Acceptable	Poor
cleanliness level of sanitary facilities				
The number of bathrooms is proportional to the number of students				
Accessible for people with special needs				
Full time cleaners are available				
Regular bathroom cleaning				

7. How would you describe the availability of health and safety support facilities and services at school ?

	Excellent	Good	Acceptable	Poor
Available first aid room				
Available medical clinic				
Regular visit of a doctor to school				
First aid training for teachers				

8. How would you describe the facilities and services provided for learners with special needs at school?

	Excellent	Good	Average	Poor
Ramps				
Elevators				
Equipped classes to meet their needs				
Special bathrooms				
Employee support service				
psychological or counselling support services				

9. How would you describe the availability of safe drinking water and sanitation systems in the school?

- Very well available
- Well available
- Insufficient
- Not available

10. How would you describe the availability of safe parking and school transport facilities for learners and teachers?

- Very well available
- Well available
- Insufficient
- Not available

11. How would you describe the availability of green spaces and natural environment around the school (parks trees, open spaces)?

- Very well available
- Well available
- Insufficient
- Not available

Section Two: Technology and Digital Infrastructure :

1. How would you describe the availability of Internet and digital connectivity at school?(Internet speed and quality)

- Very well available
- Well available
- Insufficient
- Not available

2. How often do you use technology and digital tools in daily classroom teaching?

- I use it regularly .
- I use it sometimes.
- I rarely use it .
- I don't use it .

3. What technological skills do you master?

- I use computers effectively
- I develop electronic educational content
- I use remote learning tools
- I analyze educational data
- I apply educational software
- I communicate via digital platforms
- I integrate multimedia in education
- I use assistive educational technology for students with special needs
- Other skills (please specify): _____
- I do not master any of these skills...

4. What technology-related training needs do you consider necessary to develop your skills as a teacher? (Open-ended question)

.....

.....

5. How would you describe the availability of training and technical support for teachers when they use educational technology?

- Very well available
- Somewhat available
- Insufficient
- Not available

6. How would you describe the availability of maintenance and updating electronic and technical devices along with their programs and applications in the school?

- Very well available
- Well available
- Insufficient
- Not available

7. How would you describe the availability of specialized technical support teams or a person specialized in dealing with technology problems in the school?

- Very well available
- Well available
- Insufficient
- Not available

8. Do you use e-learning materials ?

	Always	Often	Sometimes	Never
National e-book				
Other e -Books				
Educational videos				
Interactive materials such as online interactive activities)				

9. To what extent does the school administration support the effective use of technology in classrooms?

- Very strong support
- Moderate support
- Weak support
- No support

10. What support does the school administration provide for the use of technology? (More than one answer may be selected).

- Motivating teachers to use technology
- Providing training for teachers on the use of technology
- Allocating time for teachers to use technology during the classroom teaching process
- Technical support is available to solve technical problems
- Providing electronic educational resources

Section Three: Leadership and Administrative Competencies :
Category1: Strategic Planning and Decision Making

1. Are strategic plans designed during the school year to achieve the school's educational goals?

- Always
- Often
- Sometimes
- Never

2. To what extent are the administrative and educational bodies involved in the process of developing strategic plans in the school?

- Always
- Often
- Sometimes
- Never

3. How does the administration plan, manage resources, assign tasks and set priorities in your school?

- All parties participate effectively
- Some parties participate
- They are done by based on the principal's personal decision
- There are no specific plans

4. What are the main areas covered by school plans? (You can choose several answers)

- Resource Management (Human and Material)

- Distribution of tasks and responsibilities
- Determining educational priorities
- Performance Evaluation and Development
- Enhancing the competencies of the educational team

5. Does the school have contingency plans for dealing with emergencies and crises?

- Always
- Often
- Sometimes
- Never

Category Two: Leadership and Administrative Competencies of the Principal

6. What leadership model does the principal use in school ?

- Participatory leadership
- Individualized leadership
- Distributed/ leadership
- Other models (please specify) :

7. Are school members encouraged to innovate and use modern teaching practices in your school?

- Always and in an effective manner
- Often
- Sometimes
- Rarely

8. What is the level of involvement of the educational team in making important decisions in your school?

- They are always actively and effectively involved
- They are often involved
- Sometimes they are involved
- They are often not involved

9. How are change processes handled in the school, and what is the role of the administration in guiding and supporting the teaching staff and encouraging innovation and modern practices?

- The administration actively encourages, directs and supports innovation on a regular basis
- The administration provides good guidance and support, with some innovation
- Management provides limited support for change and innovation processes
- There is not much focus on change and innovation

10. What are the key leadership skills that you have in your school? (You may choose more than one option)

- Problem solving skills
- Effective communication
- Motivating and supporting the teaching staff
- Planning and organizing
- Change Management

11. In your opinion, what areas do you think the administration need to develop to improve its managerial and leadership performance? (You can choose more than one option)

- Decision making
- Communication with stakeholders
- Strategic planning
- Building partnerships

- Innovation in educational practices

Category 3: Monitoring and Evaluation Operations

12. How does the administration evaluate the performance of teachers and administrative staff at school?

- Through regular classroom visits
- Through periodic meetings
- Through specific assessment tools
- There is no evaluation mechanism

13. Does the administration provide feedback and recommendations based on evaluation of teachers?

- Always
- Often
- Sometimes
- Never

14. How does communication take place between the school administration and all concerned parties to ensure integrated efforts and achieve community support for the school?

	Communication is regular and effective	Communication is often and effective	Communication is sometimes limited	Communication is ineffective
Teachers				
Learners				
Parents				
Local community				
Supporting bodies				

15. What mechanisms are used to identify and solve potential problems in innovative ways ?

- Relying on the participation of all parties
- Relying on data analysis and problems
- Interacting with them only when necessary
- There are no specific mechanisms

16. Does the administration make regular classroom visits to monitor the progress of the educational process in the classes and support teachers?

- Always
- Often
- Sometimes
- Never

17. How effective is the administration in guiding and supporting faculty to achieve educational goals?

- Very effective
- Somewhat effective
- Needs improvement
- Ineffective

18. Do you follow up on improvements or recommendations resulting from evaluations?

- Always
- Often
- Sometimes
- Rarely

19. How does the school build relationships with the local community and supporters to secure the necessary resources and support?

	It is done very efficiently	It goes well	It is done in a limited way	Not enough relationships are being built
Local community				
Supporting bodies				

20. Are support programs for struggling students implemented in your school?

- Always
- Often
- Sometimes
- Never

Category4: Future needs and expectations

21. What are your school's needs to be able to manage any change or keep up with any development process in the educational curriculum in the near future? (You can choose more than one option)

- Financial support to secure and upgrade equipment
- Training courses for the principal
- Training courses for administrators
- Training courses for teachers
- Infrastructure development
- Strengthening partnership with the local community
- Providing modern technology
- Preparing sustainability plans
- Providing support for struggling students
- Filling in vacancies in the administrative body
- Filling in vacancies of teaching staff
- Health guidance
- Psychosocial support
- Otherwise, specify.....

Thank you very much for participating!

Your answers will help provide recommendations to improve education in Lebanon and ensure the successful implementation of the developed curricula.

11. Appendix 11: Interview Questions

A. Designated for officials in the Ministry of Education and Higher Education and the Center for Educational Research and Development.

Semi-directed questions addressed to the Director General, the President of the Center for Educational Research and Development and the Directors of the Directorates .The questions are related to the readiness of schools and their effective leadership in light of the developed curricula.

1. Evaluation of the human and material resources required to implement the developed curricula:

- **In your opinion, what are the basic resources (material and human) required to successfully implement the developed curricula in schools?**
 - Do you have any statistical information about the availability of educational equipment and tools in schools?
 - Do you have a plan to provide these tools and equipment?
- **Regarding the human resources needed to implement the developed curricula :**
 - In your opinion, what are the new human resources that schools need to implement the developed curricula?
 - Do you also think that the specialized competencies that support the new curricula are adequately attainable?

2. The role of school leadership:

- How do you perceive the role of school administration in the successful implementation of the developed curricula?
- Do you think school principals have enough skills to sustain the new curricula ?
- Do you think that the principal's powers and duties need to be reviewed in the context of implementing the developed curricula? Why?
- What does school leadership require to become effective in this context ?

3. Challenges in implementing the developed curricula:

- In your opinion, what are the challenges that school principals may face when implementing the developed curricula in schools?
- How can school administration be supported to ensure its ability to overcome difficulties when implementing the developed curricula?
- Is there a plan to follow up on the application?
- How can school performance be evaluated?

4. The role of technology and digital infrastructure:

- How important is technology in supporting the developed curricula? How do you evaluate the readiness of schools in this area?
- How does the Ministry operate to provide the necessary technological tools ?and infrastructure What are the priorities you set in this context?
- In your opinion, how can the use of technology in schools be improved to support the implementation of the developed curricula?

5. Student support and learning environment:

- What is the Ministry's plan to provide the necessary support for all students in schools including those with special needs?

- What do teachers and students need to ensure a safe and healthy learning environment? And how are these needs currently being met?
 - How does the Ministry view its role in promoting health facilities and a safe environment in schools?
- 6. The Ministry's vision for future development:**
- What is your vision for the future of education in Lebanon after implementing the developed curricula?
 - What are the basic steps that you think the Ministry should take to achieve comprehensive and sustainable development of schools ?
 - How do you plan to continuously support schools, school leaders and teachers in an effective way?

B. Designated for private sector officials and curriculum experts

Interview on school readiness and its effective leadership in light of the developed curricula

- 1. Evaluation of the human and material resources required to implement the developed curricula:**
 - **In your opinion, what are the basic resources (material and human) required to successfully implement the developed curricula in schools?**
 - Do you have any statistical information about the availability of educational equipment and tools in schools ?
 - Do you have a plan to secure these educational tools and equipment ?
 - **Regarding the human resources needed to implement the developed curricula:**
 - In your opinion, what are the new human resources that schools need to implement the developed curricula?
 - Do you also think that the specialized competencies that support the new curricula are adequately attainable?
- 2. The role of school leadership:**
 - How do you perceive the role of school administration in the success of implementing the developed curricula?
 - Do you think school principals have enough skills to sustain the new curricula?
 - Do you think that the principal's powers and duties need to be reviewed in the context of implementing the developed curricula? Why?
 - What does school leadership require to become effective in this context?
- 3. Challenges in implementing the developed curricula:**
 - In your opinion, what are the challenges that school principals may face when implementing the developed curricula in schools?
 - How can school administration be supported to ensure its ability to overcome difficulties when implementing the developed curricula?
 - Is there a plan to follow up on the application?
 - How can school performance be evaluated?
- 4. The role of technology and digital infrastructure:**

- How important is technology in supporting the developed curricula? How do you evaluate the readiness of schools in this area?
- How does the administration operate to provide the necessary technological tools and infrastructure? What are the priorities you set in this context?
- In your opinion, how can the use of technology in schools be improved to support the implementation of the developed curricula?

5. Student support and learning environment:

- What is the administration's plan to provide the necessary support for all students in schools including those with special needs?
- What do teachers and students need to ensure a safe and healthy learning environment? And how are these needs currently being met?
- How does the administration view its role in promoting health facilities and a safe environment in schools?

6. Administration's vision for future development:

- What is your vision for the future of education in Lebanon after implementing the developed curricula?
- What are the basic steps that you think the Ministry should take to achieve comprehensive and sustainable development of schools?
- How do you plan to continuously support schools, school leaders and teachers in an effective way?

12. Appendix 12: Focus Group Questions

Questions designated for learners' focus groups in the context of the " Study of School Readiness and Its Effective Leadership in Light of the Developed Curricula" – Lebanon.

School environment:

- Do you feel safe and welcome at school? Why or why not? What makes you feel safe or unsafe at school?
- What are your favorite and least favorite areas at school? And why ? Are there areas where you feel most comfortable during the school day?
- What are your favorite and least favorite times of the day at school ? And why? Are there times during the school day when you feel most comfortable?
- What changes would you suggest to improve the school environment for all those concerned?

Academic support:

- What resources or programs that help you succeed academically are available at school?
- What material resources or technical software do you need? (technology, or extra sessions that are not part of formal support).
- Are there any extracurricular programs or activities that you find helpful in your learning journey?

Skills and content:

- In your opinion, which skills are most important to learn for your future?
- Are there subjects or topics you wish were taught in school but are not currently offered?
- Do you think that the current curriculum prepares you well for life after graduating from the Secondary School ?Why or why not ?
- Are transversal competencies such as communication, teamwork or time management currently developed at school ?
- If not, how do you think they can be developed?
- Are these competencies developed through specific projects?

Future aspirations:

- If you had the opportunity to give your opinion on designing a new course material, what would it be?
- What topics would you suggest to include in this course material and why?
- How important is it to include topics such as psychosocial support career guidance, life skills etc.?

13. Appendix 13: Interview Schedule

Educational Officials and Experts	
1-Director General of Education - Mr. Imad Al-Ashqar	
2-Head of the Center for Educational Research and Development - Professor Hiam Ishaq	
3-Director of Primary Education - Mr. George Daoud	
4-Director of Secondary Education - Mr. Khaled Al-Fayed	
5-Director of Guidance and Counseling - Dr. Hilda Khoury - <u>Unable to conduct an interview with her</u>	
6- Father Youssef Nasr - Secretary General of Catholic Schools and Coordinator of the Union of Private Educational Institutions in Lebanon	
7- Dr. Fadel Al-Mousawi - Deputy Director General - Islamic Educational, Scientific and Cultural Organization	
8-Mr. Ramzi Zein El-Din - Al-Irfan Schools	
9-Dr. Ghina Al-Badawi - Director of Educational Affairs - Al-Makased Islamic Charitable Society	
10- Prof. Dr. George Nahhas - Lead Curriculum Expert - National Framework for Pre-University General Education Curriculum - Educational Ladder and Organization of the Academic Year	
11- Prof. Dr. Fadia Hattit - Expert in the Early Childhood Committee-basic supporting papers the national curriculum framework	

14. Appendix 14: Focus Group Schedule

A.Public Sector

Student's name	Principal's phone number	Principal's name	Governate	High school email	High School Name	CERD number
1. Aya Mohammed Ali Hamoud	03/576470	Wasila Yamout	Beirut	shakibirslanss@mehe.school	Prince Shakib Arslan Mixed Public School	1528
Hiam Mustafa Yamout						
Selena Walid Bou Hassan						
2. Jasmine George Saad	03/532784	Joseph George Naim	Beirut	ashrafieh2bss@mehe.school	Gebran Ghassan Tueni Second Public School	6
Hadi Haidar Al-Jammal						
Aya Hassan Fawaz						
3. Lucia Ibrahim Saab	03/125431	Abeer Mohammed Al-Homsy	Beirut	raselnabehss@mehe.school	His Excellency President Riad Al Solh Official Website of Benin	30
Yahya Alaa El - Din						
Serene Badr Alwan						
4. Jamal Hafez Ghattas	70604204	Ali Bou Latif	Bekaa	haramounrachayass@mehe.school	Harmon High School	1476
Nancy Ihab Saad						
Rimas Imad Ahmad						
5. Nour Fadi Nassif	3244867	Musab Deeb	Bekaa	karaounss@mehe.school		1009
Diana Mohammed Dabaja						
Mohamed Emad Arabi						
6. Lea Maher Baydoun	71/622500	Khaled Hamza	Bekaa	majdelanjarss@mehe.school	Majdal Anjar	833
Maram Mohammed Al-Qaruni						
Sireen Bilal Ghanum						
7.Reina Al Rabis	03/738473	Sanaa Shuhayeb	Mount Lebanon	marounabboudss@mehe.school	Maroun - Abboud Aley	255
Adam Abu Saad						
Bassem Gharizi						
8. Aya Maria Tony Abi Younes	70/859527	Nina Adeeb Mansour	Mount Lebanon	ehmejss@mehe.school	official	1464

Student's name	Principal's phone number	Principal's name	Governate	High school email	High School Name	CERD number
Sibal Nazih Matta						
Jason Charbel Matta						
9.Ghina Fadi Kiwan	03/913911	Bassem Hassib Malak	Mount Lebanon	almoukhtarass@mehe.school		
Joyce Nabil Zain El Din						
Khaldoun Fadi Saadeddine						
10.Rawan Abdel Nasser Al-Manih	70148593	Aysha Bazzal	North	Kobbe3ss@mehe.school	New Mixed Dome	1555
Jihad Jamal Agha						
Sahar Abdullah Ahmed						
11. Raneem Khaled Berri	03/572104	Cosette Naim Atallah	North	kafarakkass@mehe.school	Kafr Aqqa	1391
Gina Raymond Bou Saba						
Marilyn Amin Gemayel						
12. Ryan Dakramanji	03/432779	Rawya Al-Shaqiq	North	sirdonniehss@mehe.school	Zgharta	490
Hala Bo Kanj						
Rama Salma						
13. Tia Hassan Al-Hajj Suleiman	3276907	Bilal Al-Hajj Suleiman	Baalbek-Hermel	bidnayelss@mehe.school	Nabil Adeeb - Suleiman Bednayel	967
Safwan Ali Maarbouni						
Hadi Abdul Karim Al Ramh						
14. Maria George Al Lakkis	03/521229	Ziad Ibrahim Nassif	Baalbek-Hermel	rasbaalbeckss@mehe.school	Ras Baalbek	885
Serena Tony Ghanem						
Ghanwa Fleeti						
15. Ghadeer Samer Assi	70935402	Mayad Blaibel	Baalbek-Hermel	hermelnamouzajass@mehe.school	Hermel Model	1473
Ghadeer Rakan Khair El-Din						
Tharwat Hussein Shamas						
16. Antonio Makhoul	3061855	Carla Khoury	Akkar	Kobayatbss@mehe.school	Qubayat	635
Nour Ibrahim						
Joseph Hakmeh						
17.Huwayda Farouk Saqr	03/739249	Khaled Ismail	Akkar	alkawashirass@mehe.school	The Kwashira	1585

Student's name	Principal's phone number	Principal's name	Governate	High school email	High School Name	CERD number
Aya Mohammed Al-Asaad	03/988487	Walid Al Lakkis	Akkar	hrarss@mehe.school		1390
Maya Khaled Mohammed						
18.Jana Hazeem						
Ahmed Darwish	03/273551	Elham Faraj	South	nbazouriehss@mehe.school	Al-Bazourieh	1411
Majida Issa						
19. Hussein Mohammed Shehab						
Hisham Yasser Saad	03/310754	Nahla Mohammed Khair Hunayneh	South	saidagss@mehe.school	Dr. Hekmat Sabbagh Yumna Al" "Eid	1043
Sarah Abdullah Soufan						
20. Serene Bilal Miftah						
Sarah Mohammed Al-Batheesh	70/458925	Rana Girgis Semaan	South	maghdouchiss@mehe.school		1070
Suneel Mohammed Dhafer						
21.Mia Nakhle Costantin						
Joya Charbel Youssef	03/297670	Fouad Ibrahim	Nabatiyeh	kafrass@mehe.school	Kufra	1449
Clara Emil Aziz						
22. Hawra Mohammed Hijazi						
Mahmoud Ezz El-Din	03/713890	Abbas Kamel Shumaysani	Nabatiyeh	alsabbahss@mehe.school	Hassan Kamel Al Sabbah	1324
Maha Sweidan						
23Lina Kaheel						
Reem Juma	71435323	Rania Bou Ghida	Nabatiyeh	hasbayass@mehe.school	Hasbaya	1176
Ahmed Basem Faqih						
24.Taleen Wissam Al-Kakhi						
Serene Atef Al-Khumasi						
Ghadi -Raja Al Kadi						

B.Private sector

	Joseph Reiad
	George Kareh
Saint Coeur - Batroun	Gaelle Sakr
	Georges Abboud
	Thea Baz
Al -Ofoq Al Jadeed	Lara Basrawi
	Naziha Aiin
	Sadine Sabbagh
Al - Kalaa School	Ranime Ghourabi
	Yousef Nahouli
	<u>Dima Ghanem</u>
NAS -Beqaa	Jean Michel Daoud
	Charbel Sassine
	Dany Abou Ali
Averroes College Taalbaya	Ali Nabha
	Yara Houshaymi
	Mayssam Hachem
Saint Coeur - Zahle	Racha Sleiman
	Charbel Moutran
	Clea Sarkis
SSCC - Marjeyoun	Chadi Hadwi
	Israa Chitt
	Moufid Said
Ajyal High School -Nabatieh	Fatima Makki
	Kobrosly Farouk
	Lamar Kobrosly

15. Appendix 15: Pilot Study or Experimental Application

Pilot Schools in the “Study of School Readiness and Its Effective Leadership in Light of the Developed Curricula in Lebanon”

School name	School number	Educational sector	Governate
Martyr Adnan Halbawi Public School – Al-Awzai	1621	public	Beirut
Second Mixed Public School for girls	17	public	Beirut
Antelias Mixed Intermediate Public School	141	public	Mount Lebanon (suburbs)
Jbeil First Mixed Intermediate Public School	167	public	Mount Lebanon (except suburbs)
Kamal Jumblatt Mixed Intermediate Public School	312	public	Mount Lebanon (except suburbs)
Al Hayat Public School for girls	385	public	North
Ka Al-Reem Mixed Intermediate Public School	805	public	Bekaa
Martyr Hassan Qasir Intermediate Public School	1234	public	South
Martyr Muhammad Zaarour Mixed Public School	1514	public	South
Aidmon Mixed Public School	644	public	Akkar

16. Appendix 16: Codes and Categories Extracted from Interviews with Educational Officials

Codes الرموز	Themes الفئات	Details التفاصيل
Availability of Technology	Infrastructure Challenges	Lack of technology and laboratories, unstable and intermittent internet, insufficient technical tools and educational resources.
Inequality Among Schools	Equity in Resource Distribution	Fully equipped schools vs. schools suffering from severe shortages; lack of fairness in resource distribution.
Weak Educational Competencies	Teacher Training Importance	The need for continuous training programs to shift focus towards competencies and quality education objectives.
Logistical Administration	Redefining School Administration	Current focus on organizational aspects instead of educational leadership, emphasizing the role of principals as interactive leaders with updated curricula.
Lack of Educational Leadership	Redefining School Administration	The need to understand curriculum philosophies and balance administrative and educational tasks.
Enhancing Training Programs	Teacher Training Importance	Providing specialized and sustainable training programs for teachers and principals to achieve new curriculum goals.
Educational Technology	Technology as a Key Driver	Utilizing local technologies like intranet, offering affordable technology, and integrating it to support education despite internet weaknesses.
Financial and Policy Support	Government's Role in Education Support	Ensuring clear and direct funding, adopting policies that support educational transformation toward globally aligned quality education.
Limited Spaces	Infrastructure Challenges	Lack of spaces designated for new activities such as sports, theater, and music.

17. Appendix 17: Codes and Categories Extracted from Interviews with Private Educational Institutions

Questions	Codes	Categories
<p>1- Evaluation of the human and material resources required to implement the developed curricula:</p> <p>What are the essential resources (material and human) needed for the successful implementation of the developed curricula in schools?</p>	<ul style="list-style-type: none"> • Lack of preparation for human resources: The human resources were not prepared in 1997 and were not sufficiently trained. • Recruitment of new teachers: Specialists in new knowledge fields. • Training current teachers: On integrating extended competencies with various subjects. • Training teachers on assessment: Understanding and teaching strategies for assessing complex competencies. • Recruitment of new coordinators: To keep up with new requirements and supervise new specialties. • Training current coordinators: To supervise teachers and ensure efficient curriculum implementation. • Fluctuation between curricula: Conflict between old and new curricula (content-based approach vs. objective-based approach). • Lack of clarity in pedagogical approach: Differences between teacher-centered (magistral) and interactive approaches. • Pressures and circumstances: Impact of war and economic and social conditions on readiness. • Disparity in school resources: Differences between public and private schools in material resources. Private schools are better equipped. Disparities between private schools (e.g., Al-Erfan, Catholic schools). • Cost of equipment: Who bears the cost of the required equipment for the new curricula? • Digital equipment: Private schools have the capacity for distance learning and using computers to facilitate curriculum implementation. • Internet connection: To support digital and interactive learning. 	<p>Human Resources</p> <p>Readiness of Material Resources</p>

	<ul style="list-style-type: none"> • Diverse classroom equipment: Such as interactive screens or modern teaching tools. 	
Do you have statistical information about the availability of educational tools and equipment in the school?	<ul style="list-style-type: none"> • Relative readiness in Al-Maqasid schools. Material resources in schools: Computers, interactive boards, science labs. • Lack of equipment in secondary schools (Al-Erfan). • Additional classrooms: Need for new classrooms in secondary sections. • Specialized modern labs: An essential requirement for meeting the needs of the new curricula. • Lack of accurate statistics: Lack of detailed information on the equipment in each school. • Impact of lack of statistics on effective curriculum implementation planning. • 50% of Catholic schools are ready (disparity among schools within the same institution). • Disparities among schools: Affecting student preparation and increasing the educational gap. • Importance of prior preparation: Includes preparing infrastructure, resources, and educational mindset. • Gradual curriculum implementation: Starting with early stages (pre-school or primary). • Avoiding haste: Focusing on equipment and preparing the groundwork before expanding. • Importance of equipment guide: Preparing a guide by the educational center for the required equipment to implement the new curricula. 	Educational Tools and Equipment Challenges in Curriculum Implementation
Institutional Support Do you have a plan to ensure these educational tools and equipment?	<ul style="list-style-type: none"> • Current plans do not align with the new curricula. • Need for adjustments. • Need for funding. • Tied to the timeline for implementing curricula. • Readiness to implement curricula at the preschool and primary education stages. • Secondary education needs special measures. • Delay in implementing curricula at the secondary stage. • Comparison between Al-Maqasid schools and other schools. 	Challenges in Developing a Plan for Ensuring Resources Financial Strategies and Planning (Securing Resources and Equipment, Public-Private Sector Cooperation, Financial Planning for Implementation)

	<ul style="list-style-type: none"> • New specialties are not ready in other schools. The plan will include ensuring the necessary tools and equipment for implementing the curricula or technological plans, which requires allocating specific budgets and collaborating with partners from both the public and private sectors. Partnerships with both sectors are a key part of the plan to ensure the necessary funding and resources for successful plan implementation. The plan relies on allocated and well-studied budgets to ensure the provision of necessary equipment, indicating the need for financial and logistical aspects to achieve the plan's goals. The plan concerns what the ministry wants (lack of clarity regarding the future, lack of clear answers to questions, problems in the educational ladder, need to understand the direction of the Ministry of Education). 	
Regarding the human resources needed for implementing the developed curricula, what new human resources does the school need to implement the developed curricula?	<ul style="list-style-type: none"> • Preparing the current staff (principals, teachers, educational supervisors). • New mindset and educational approach. • Adaptability. • Specialists in various fields. • Technology in education (advanced use of technology). • Vocational education. • Dealing with students with special needs. • Academic and vocational pathways (balance between academic and vocational focus). • Shift in student assessment (skills and competencies instead of traditional goals). • Training to deal with subjects according to the goals of the new curricula. • Preparing teachers for specialization in the secondary stage according to subjects. 	Human Resources Preparation Technology and Vocational Education Specialized Competencies and New Assessment Approaches
Are specialized competencies adequately available to support the new curricula?	<ul style="list-style-type: none"> • Readiness of Al-Maqasid schools for training and follow-up. • Specialized competencies are not available. • Presence of a training and professional development center. • Presence of a coordinators' council. 	Availability of Specialized Competencies Readiness and Training

	<ul style="list-style-type: none"> • Ongoing monitoring by the educational affairs department. • Specialization in secondary school subjects requires new teachers, who are unavailable. • No teachers for dealing with special needs students. • No specialized competencies for the developed curriculum. • Technological competencies are not available among all teachers (e.g., using artificial intelligence in education). 	
<p>2- Role of School Leadership:</p> <p>What is your view on the role of school leadership in ensuring the successful implementation of the developed curricula?</p>	<ul style="list-style-type: none"> • Developing clear and implementable strategies and plans. • Providing a suitable learning environment. • Supporting teachers in their training and skill development. • Promoting a culture of cooperation among teachers, students, and parents. • Evaluating performance for continuous improvement. • Sustainable development of all school departments. • Addressing challenges during implementation. • Encouraging innovation in teaching methods. • Achieving better educational outcomes. • Providing logistical resources (both digital and non-digital). • Providing specialized human resources. • Offering professional development opportunities for veteran teachers. • Monitoring the use of logistical resources and ensuring their utilization. • Monitoring student assessment processes to ensure the achievement of desired outcomes or competencies. 	<p>School Leadership and Curriculum Planning</p> <p>Teacher Support and Development</p> <p>Collaboration and Communication</p> <p>Continuous Evaluation and Improvement</p> <p>Challenges and Innovation</p> <p>Achieving Educational Outcomes</p> <p>Management of Logistical and Human Resources</p> <p>Monitoring and Evaluation</p>
<p>Do you think that school principals have the necessary skills to support the new curricula?</p>	<ul style="list-style-type: none"> • Some current principals lack the necessary skills to support the new curricula. • Importance of subjecting principals to necessary training. • Training by curriculum developers. • Empowering principals to manage their schools in light of the new curricula. 	<p>Training and Professional Development for Principals</p> <p>Empowering School Leadership</p>

<p>Do you think that the principal's authority and responsibilities need to be reconsidered in the context of implementing the developed curricula? Why?</p>	<ul style="list-style-type: none"> • The principal's authority needs to be reconsidered. • Activation of new leadership methods aligned with contemporary learning requirements. • Greater authority in decision-making related to curricula. • Allocation of resources. • Promoting a culture of innovation within the school. • Managing challenges related to implementing new curricula more effectively. • Law 2013: The principal must have a specialized school management degree. • School management degree: The principal should have a specialized degree in school management. • Curriculum adjustments: Curricula need legal amendments. • Automatic success: Laws regarding automatic success should be amended. • Relationship between academic and vocational: Needs amendments. • Distance learning: Legal adjustments are necessary. • Principal preparation: Training for principals is crucial for the continued implementation of curricula. 	<p>Principal's Authority and Leadership of New Curricula Promoting Innovation and Managing Challenges Legislative Amendments Principal Preparation</p>
<p>What does school leadership need to be effective in this context?</p>	<ul style="list-style-type: none"> • Training on the new curricula. • Training on change management. • Training on strategic leadership. • Professional development programs on modern teaching methods. • Clear vision and strategy: Aligning educational goals with the developed curricula. • Effective communication: With teachers, parents, and the community. • Collaborative work environment: Encouraging innovation within the school. • Technical and technological support: Providing necessary tools to ensure efficient curriculum implementation. • Improving the quality of education and the 	<p>Enhancing Leadership Skills Communication and Collaboration Technical and Technological Support Vision and Strategy</p>

	student experience: The ultimate goal of curriculum implementation.	
3- Challenges in Implementing the Developed Curricula: What challenges do you think school principals will face when implementing the new curricula?	<p>Resistance to change by teachers and other stakeholders</p> <p>Psychological or practical resistance due to habituation to the old system, or fear of failure in implementing the new curricula</p> <p>Difficulty in providing adequate and continuous training for teachers to ensure their full understanding of the new curricula</p> <p>Lack of financial and technical resources necessary to support the implementation of these curricula</p> <p>Organizing schedules and academic activities to balance between the developed curricula and traditional requirements, which requires high leadership and administrative skills from school principals</p> <p>Difficulty in finding qualified human resources to implement the new curricula</p> <p>Learning loss that students still suffer from since the COVID-19 pandemic and recurring crises</p> <p>Difficulty for veteran teachers in the school to adapt to the new curricula, despite receiving the necessary training (the fluctuation between the objectives-based approach and the competency-based approach)</p> <p>The school's inability to provide digital technology devices, possibly due to insufficient budget availability amid the economic crisis</p> <p>Challenges related to the students themselves, due to their feeling of difficulty in learning through teaching methods different from those in previous years, and in a different style compared to that in earlier grades</p> <p>Inflexibility of unified evaluation plans: the evaluation plans prepared by the state are not suitable for some contexts, especially in private schools.</p>	<p>Human and Social Challenges</p> <p>Technical and Technological Challenges</p> <p>Material Challenges</p> <p>Administrative and Organizational Challenges</p> <p>Educational Challenges</p>
How will school administration be supported to ensure its	<ul style="list-style-type: none"> • Periodic workshops • Training on change management • Enhancing collaboration between 	Training and professional

ability to overcome difficulties when implementing the developed curricula?	<p>administration and teachers</p> <ul style="list-style-type: none"> • Lack of funding • Support for technological infrastructure • Providing necessary devices and software • Appointing educational supervisors • Providing direct field support • Building supportive and trusting relationships • Developing clear practical implementation mechanisms • Issuing executive decrees • Flexible and adaptable policies • Holding the Ministry of Education accountable • Collaboration between schools and the ministry • Involving funding agencies • Forming regional educational committees • Sharing experiences and best practices • Strengthening educational forums 	<p>development</p> <p>Financial and technological resources</p> <p>Supervision and monitoring</p> <p>Policies and implementation mechanisms</p> <p>Partnership and institutional responsibility</p> <p>Support and collaboration networks</p>
Is there a plan to monitor the implementation?	<ul style="list-style-type: none"> • Testing the plan before generalizing it • Activating communication between the Educational Center and the administrations of public and private schools in Beirut and the governorates • Private institutions are ready for testing in their schools • Forming evaluation teams • Establishing clear and measurable performance indicators to regularly assess learning outcomes and educational processes • Organizing periodic review sessions to exchange opinions and experiences between teachers and administration • Adapting plans according to changing needs • Mechanisms for documentation and reporting, providing continuous feedback and necessary adjustments, paving the way for achieving the set educational goals • The plan is the responsibility of the Ministry 	<p>Experimentation/Pilotin g</p> <p>Evaluation (by teachers and administrators to Monitor the implementation of the curricula and identify strengths and weaknesses in each school)</p> <p>Review</p> <p>Reference in planning</p>
How will school performance be evaluated?	<ul style="list-style-type: none"> • Regular workshops for school principals and teachers 	<p>Measurement tools</p> <p>Workshops</p> <p>Performance indicators</p>

	<ul style="list-style-type: none"> • Surveys prepared by the Educational Center for Research and Development on the effectiveness of implementation, challenges, and difficulties • Key performance indicators (student test results, attendance rates) • Regular field visits for evaluation • Interviews with teachers, students, and parents • Performance data analysis • Feedback • Evaluation is the responsibility of the Ministry and the Educational Center • Private schools cooperate in the evaluation 	Responsible entity
<p>Digital infrastructure: How important is technology in supporting the developed curricula? And how do you assess the readiness of schools in this area?</p>	<ul style="list-style-type: none"> • Technology is fundamentally essential to support the developed curricula. • The use of computers, the internet, electronic screens, and artificial intelligence. • Interactive programs enhance creativity and innovation. • Technology is one of the competencies embedded in the new curriculum. • There is a disparity in readiness between public and private schools. • Technology is an integral part of the developed curricula. • Technology contributes to enhancing interactive learning. • Al-Irfan schools are equipped with modern interactive boards, but they lack the necessary infrastructure such as fast internet and advanced laboratories due to the high costs. • There is no new education or educational plan without technology. • Readiness is low in schools in peripheral areas. 	Importance of Technology Readiness

How does the administration work to provide the necessary technological tools and infrastructure? What are the priorities you set in this context?	<ul style="list-style-type: none"> • Providing needs is the responsibility of the Ministry. • The Ministry supports the public sector, not the private sector. • Strategies are developed by the Ministry to assess needs. • Providing assistance to schools to meet their needs. • Reliance on tuition fees in the private sector. • The cost of equipment is the responsibility of the state. • Providing computers, interactive boards, and digital infrastructure. 	Sources of funding The responsibility of the Ministry Priorities
How do you think technology use in schools can be improved to support the implementation of the developed curricula?	<ul style="list-style-type: none"> • Special accreditation certificates • Required training workshops for administrative and educational staff • Measuring the impact of workshops by the Educational Center for Research and Development • Adding STEAM lessons to the curriculum • Adopting Virtual Reality and Artificial Intelligence • Developing digital educational content aligned with the curricula • Focusing on interactivity of materials to enhance educational engagement • Establishing interactive educational platforms • Providing infrastructure 	Areas for improving the use of technology
Support for Students and Learning Environment: What is the administration's plan to provide the necessary support for all students in schools, including those with special needs?	<ul style="list-style-type: none"> • The developed curricula take individual differences into account. • Preparation of special curricula for students with special needs that include different educational stages and pathways, according to their specific abilities. • Assisting both public and private schools in providing assistive tools such as audio books or books in braille. • Providing a healthy, safe, inclusive, and suitable school environment that meets the needs of all students. 	Contents of the administration plan Ministry's responsibility Challenges

	<ul style="list-style-type: none"> • Training teachers on specialized teaching strategies focused on meeting the needs of students with special needs. • Striving towards achieving inclusive schools. • Converting a number of schools into inclusive schools. • The need for specialists. • The need for training courses. 	
What do teachers and students need to ensure a safe and healthy learning environment? And how are these needs currently being met?	<ul style="list-style-type: none"> • Training teachers on inclusive teaching methods and how to work with students with special needs • Providing teachers with appropriate resources and tools • Appointing specialist supervisors to guide and assist teachers • Implementing emotional and social support programs • Securing financial support • Providing clean and suitable study spaces • Implementing effective security measures 	<p>Continuous training</p> <p>Providing material resources</p> <p>Providing human resources</p> <p>Providing educational resources</p>
How does the administration view its role in enhancing health facilities and a safe environment in schools?	<ul style="list-style-type: none"> • A special section for students with special needs. • Providing educational, psychological, and social support. • Individualized plans that consider teaching methods, evaluation, psychological therapy, sensory-motor development, speech therapy, learning difficulties, and more. • Implementing decisions, laws, and decrees related to school organization. • Developing the plan and securing necessary equipment. 	The role of the administration
Vision of the Administration for Future Development: What is your vision for the future of education in Lebanon after the	<ul style="list-style-type: none"> • Building a modern and innovative education system that meets the needs of all segments of society. • Contributing to the development of life skills and digital technological skills that prepare students for the job market. • More interactive and aligned with the needs of 	<ul style="list-style-type: none"> • Skill development • Advanced educational system • Focus on technology • Official support

implementation of the developed curricula?	<p>students and the labor market.</p> <ul style="list-style-type: none"> • Focusing on enhancing critical thinking and life skills. • Integrating technology in education will improve access to information and educational resources, enhancing the learning experience. • Developing social and practical skills will better prepare students for the changing job market. • Focusing on effective teacher training. • Providing adequate support to schools. • Governmental and community commitment to strengthening education. 	
What are the key steps that you believe the ministry should take to achieve comprehensive and sustainable development for schools?	<ul style="list-style-type: none"> • Achieving comprehensive and sustainable development for schools • Securing funding for free and low-fee private schools • Developing the technological infrastructure in schools • Providing innovative educational resources that support the developed curricula • Focusing on continuous professional development for teachers and administrators • Updating curricula • Providing intensive training programs for teachers and principals 	<p>Infrastructure</p> <p>Training</p> <p>Curricula</p> <p>Funding</p> <p>Resources</p>
How do you plan to ensure the continued support of schools, school leadership, and teachers effectively?	<p>Providing training workshops</p> <p>Maintaining a positive climate in schools</p> <p>Creating a learning environment that encourages students to be creative, innovative, think critically, and solve problems</p> <p>Implementing technology and artificial intelligence</p> <p>Writing books and providing educational resources</p> <p>Strengthening local and international community partnerships</p> <p>Implementing a regular evaluation system to gather feedback on the effectiveness of strategies and support, which helps adjust plans according to the needs of schools</p>	<p>Developing the performance of principals, coordinators, and teachers</p> <p>Educational resources</p> <p>Community partnerships</p>

18. Appendix 18: Codes and Categories Extracted from Focus Groups

Category	Subcategories	Codes
School Environment & Sense of Safety	Teacher's role in creating a motivating learning environment	Teacher's personality Teaching style Positive interaction
	Topic 2: Interest in Subjects	Preference for scientific subjects Disinterest in literary subjects Relation to future career
	Administrative Interest	
	Extra-curricular activities	
	Favorite places	
	Preferred times	
Academic Support	Official support system	Appropriate class size Available administrative assistance Communication with teachers
	Informal Support	Peer support Communication outside study hours Mutual help Technological Resources Use of technology in education
Challenges & Needs	Need for institutional development	Need for updates Technical challenges,
	School facilities and resources	Institutional responsibility Need for developmental projects
Skill Development	Diversifying skills	Technological skills, Manual & creative skills Social & collaborative skills
	Preparedness for Life After School	Academic and career guidance Community service projects
	Self-awareness and academic decision-making	

	Exploring academic specialties,	
	Teacher's role in guidance	
Current Curriculum Issues	Suggestions for curriculum development	<p>Focus on memorization over critical thinking</p> <p>Outdated content</p> <p>Insufficient preparation for future careers</p> <p>Interdisciplinary learning,</p> <p>Skill-based learning</p> <p>Technology integration</p> <p>Social and emotional learning</p>
	Teaching and Learning Methods	<p>Practical approach</p> <p>Interactive learning methods</p> <p>Teacher training</p> <p>Philosophy and abstract subjects</p>
	Assessment & Exams	<p>Exam formats</p> <p>Balanced assessment systems</p> <p>Flexible assessment policies</p>
	Equity & Accessibility	<p>Resource distribution,</p> <p>Digital divide</p>
	Future Opportunities Preparation	<p>Alignment with university requirements</p> <p>Job market readiness</p>
	Extra-curricular Activities & Inclusive Education	<p>Integration into curricula</p> <p>Community service</p> <p>Talent support</p>
	Cultural & Socioeconomic Relevance	<p>Local history & culture</p> <p>Global perspective</p>
	Technology in Education	<p>Digital resources</p> <p>Technology-driven education</p>
	Content Updates	<p>Textbook updates</p> <p>Practical applications</p>

19. Appendix 19: Analysis Of Study Results

First: Demographic Results

The questionnaires addressed to principals, supervisors, coordinators, and teachers included a section covering demographic data. This section encompassed variables such as age, gender, academic qualifications, job titles, and years of experience in their respective fields. After analyzing the data for each variable within the different respondent categories and comparing them across educational sectors and regions, the following results were derived and summarized:

1. Age Results

1.1. Percentage Distribution of Principals by Age Category

The following chart illustrates the distribution of principals by age category.

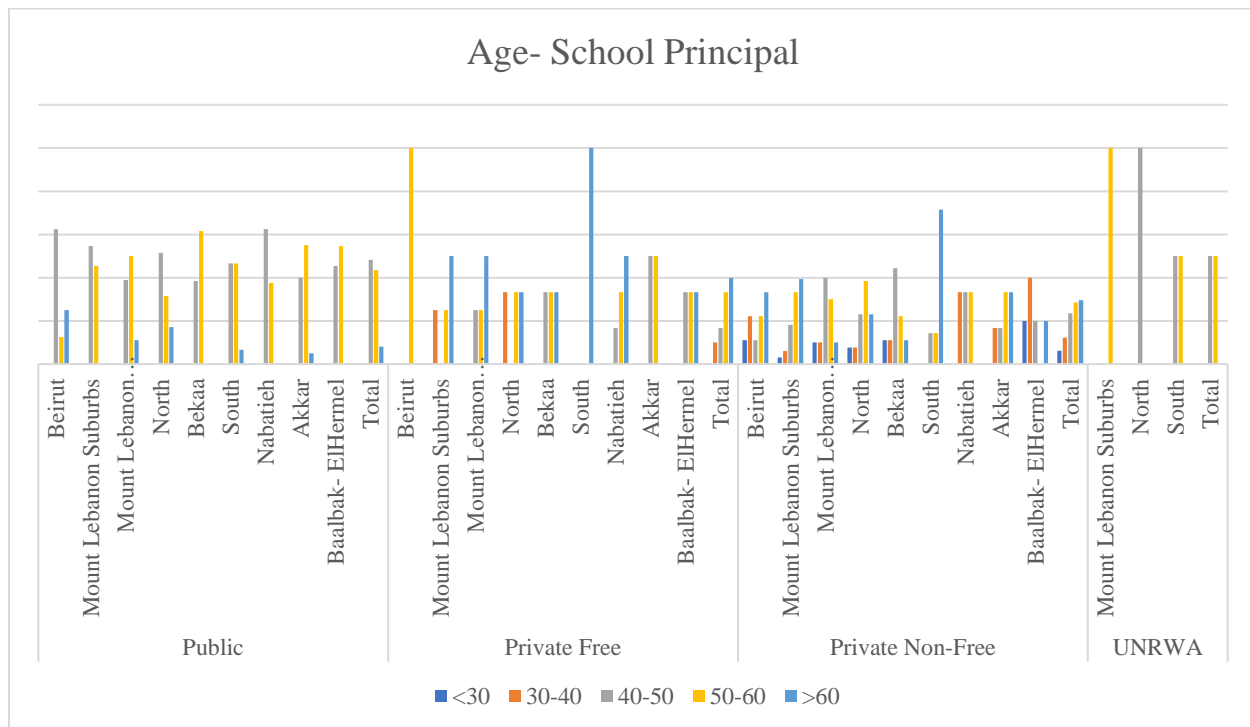


Chart (1): Distribution of Principals by Age

The total number of principals participating in the study was 279, distributed across educational sectors in Lebanon's governorates. Age was categorized into groups (each spanning 10 years) to facilitate statistical analysis. The overall results showed that the largest proportion of principals fell within the age group 50–60 years, representing 37.3% of the total participants. This was followed by the age group 40–50 years, which constituted 36.2% of the participants. The age group

above 60 years accounted for 19.0%, while the lower age groups had smaller shares: 5.4% for those aged 30–40 years, and the minimum share of 2.2% for those under 30 years.

In the public sector, the 40–50 years age group had the highest representation at 48.3%, followed closely by the 50–60 years age group at 43.5%, with total absence younger age groups.

In the private free sector, the more than 60 years age group was the most prominent, representing 40%. However, the percentage for the 30–40 years group increased to 10%, indicating a higher presence of younger principals.

In the private non-free sector, the more than 60 years age group was the most prominent, representing 29.6%, and the 50–60 years age group 28.6%, and the 40–50 years 23.5%. with 12.2% of ages 30–40 and 6.1% of less than 30 years old.

In the UNRWA sector, the 40–50 years and 50–60 years age groups dominated, with a noticeable absence of younger principals.

Regionally, in the Beirut governorate, the public sector showed a concentration of principals in the 40–50 years age group at 62.5%, followed by 25% in the above 60 years group. The private non-free sector in Beirut displayed a significant presence of principals aged 50–60 years.

In the Akkar governorate, the 50–60 years age group represented 55.0% in the public sector, while the other sectors showed more balanced age distributions.

In Baalbek-El Hermel, the public sector reported 100% in the 40–60 years group, while the private non-free sector showed 40% representation for the 30–40 years age group.

In the South, public sector results showed an equal distribution between the 40–50 years and 50–60 years age groups, each at 46.7%, while above 60 years groups also dominated in the private sector.

In Nabatieh, the 40–50 years age group had the highest representation in the public sector at 62.5%, while the private sector showed more balanced age distributions.

In the North, the public sector had a dominant representation in the 40–50 years age group (51.4%), while in Mount Lebanon Excluding Suburbs, the 50–60 years age group led in the public sector.

It is evident that all educational sectors rely heavily on older principals, as the results reflected a weak presence of younger principals.

1.2. Percentage Distribution of Supervisors by Age category

The results indicated that the most common age group among supervisors was 40–50 years, representing 43.8%, followed by the 50–60 years group at 41.9%. Meanwhile, younger age groups (30–40 years) were less represented, accounting for only 3.7%. The following chart illustrates the distribution of supervisors by age.

The public sector is characterized by a significant representation of the 40–50 years and 50–60 years age groups, indicating a reliance on older supervisors, with the presence of supervisors aged under 30 years declining to only 3.7%.

In the private free sector, the largest proportion was in the 30–40 years age group, accounting for 32.3%, primarily concentrated in the Bekaa and South governorates. The private non-free sector displayed more balanced results across age groups, with good representation of younger supervisors (23.1%). In the UNRWA sector, supervisors were equally distributed across the middle age groups (30–60 years), with no representation for those under 30 years.

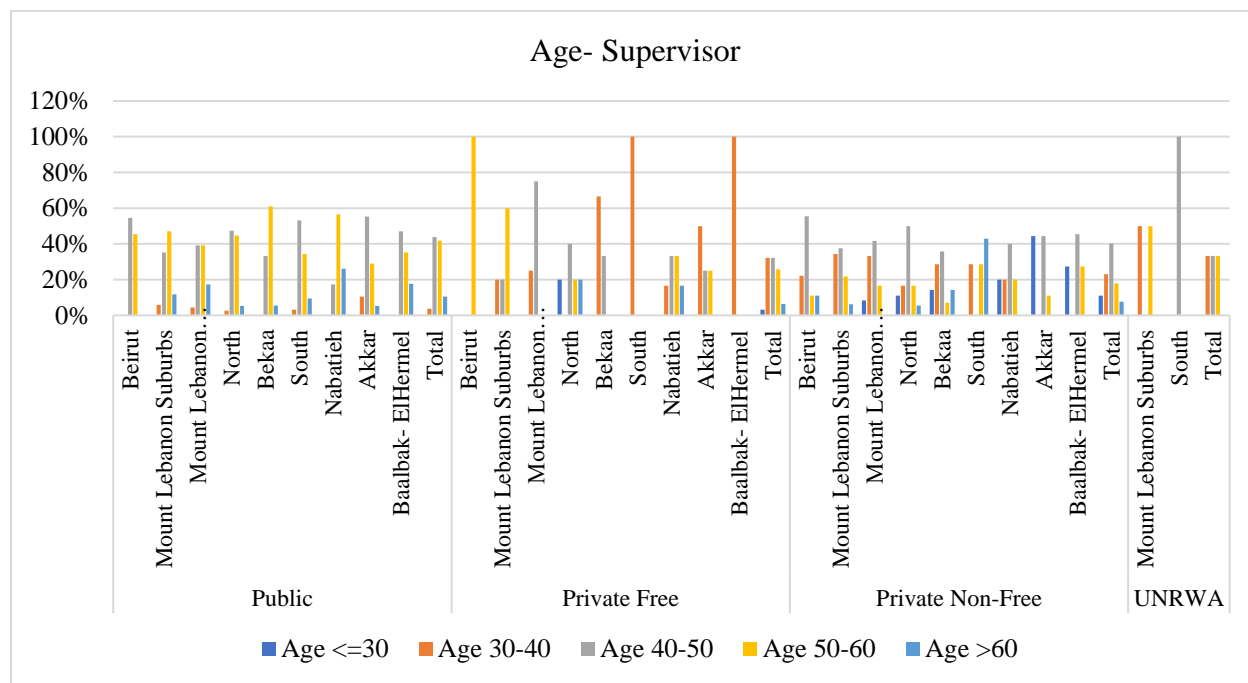


Chart (2): Distribution of Supervisors by Age

Overall, the private sector demonstrated greater flexibility in integrating younger supervisors compared to the public sector, where supervisors are predominantly in the older age groups.

At the governorate level, Beirut recorded the highest percentage of supervisors aged above 50 years, while Akkar and Baalbek-Hermel showed a stronger presence of younger supervisors (under 30 years). The 30–40 years age group was particularly prominent in the South and Nabatieh governorates, accounting for 100% of supervisors in private free education.

1.3. Percentage Distribution of Coordinators by Age Category

The results indicated that the most common age group among coordinators is 40–50 years, representing 42.1%, followed by the 30–40 years group, which accounts for 35.3%.

In the public sector, the results from Beirut governorate show that 44.4% of coordinators are under the age of 30, while other governorates rely more on the 40–50 years age group. In Baalbek-Hermel governorate, the results reveal an equal distribution across the 30–60 years age groups, with each group accounting for 33.3%.

The following chart illustrates the distribution of coordinators by age.

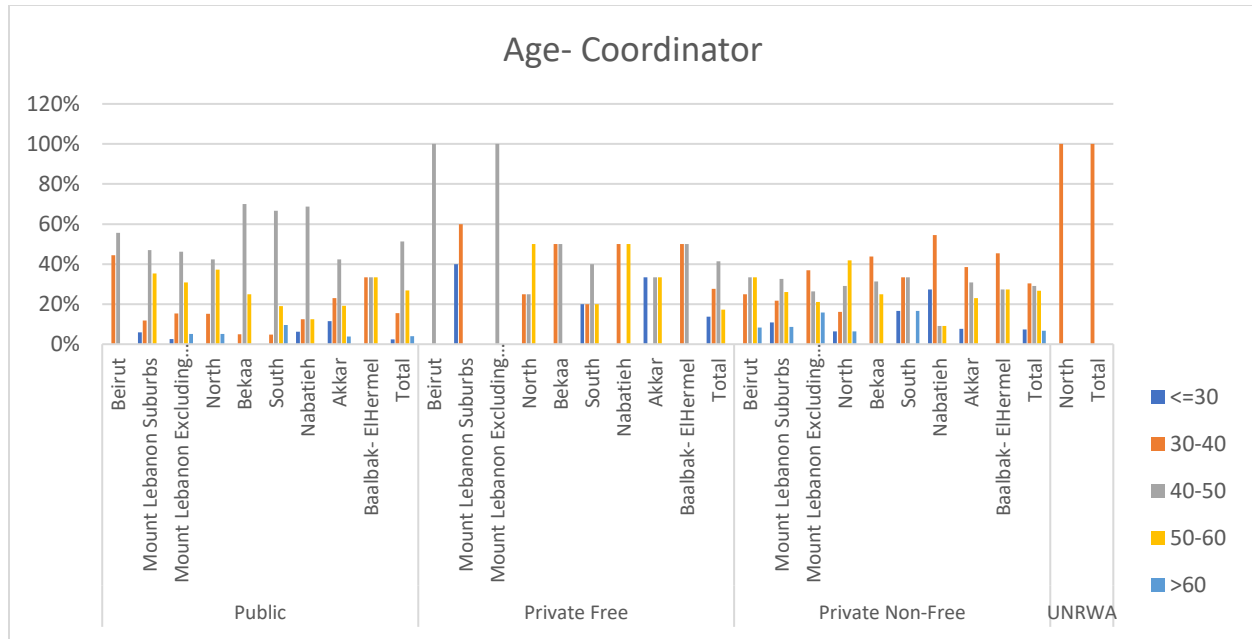


Chart (3): Distribution of Coordinators by Age

The private free sector shows a relative balance between age groups, with a strong representation of the 30–40 years group, which accounts for 60% of coordinators in the Mount Lebanon governorate.

In the private non-free sector, younger age groups are more represented, with a notable percentage of coordinators in the 30–40 years category, reaching 36.8%. In the UNRWA sector, coordinators are evenly distributed between the 30–40 years and 40–50 years age groups.

At the governorate level, young coordinators in the 30–40 years group stand out in the Bekaa (70.0%) and South (66.7%) governorates. The North governorate relies more on older coordinators (50–60 years), while the other age groups are evenly distributed (25% each). In Mount Lebanon (excluding its suburbs), the majority of coordinators belong to the 40–50 years group and work in both the public sector and the private free sector.

There is a clear variation in the age composition of coordinators across sectors, with the private sector more inclined to include younger age groups compared to the public sector.

It can also be concluded that most coordinators across governorates belong to the 40–50 years age group, accounting for 42.1% of all coordinators. The proportions vary by governorate, with the highest representation of younger age groups (30–40 years) in the Bekaa and Beirut governorates. In contrast, other governorates, particularly the North and Mount Lebanon, tend to rely more on older coordinators.

1.4. Percentage Distribution of Teachers by Age Category

The following chart illustrates the distribution of teachers by age.

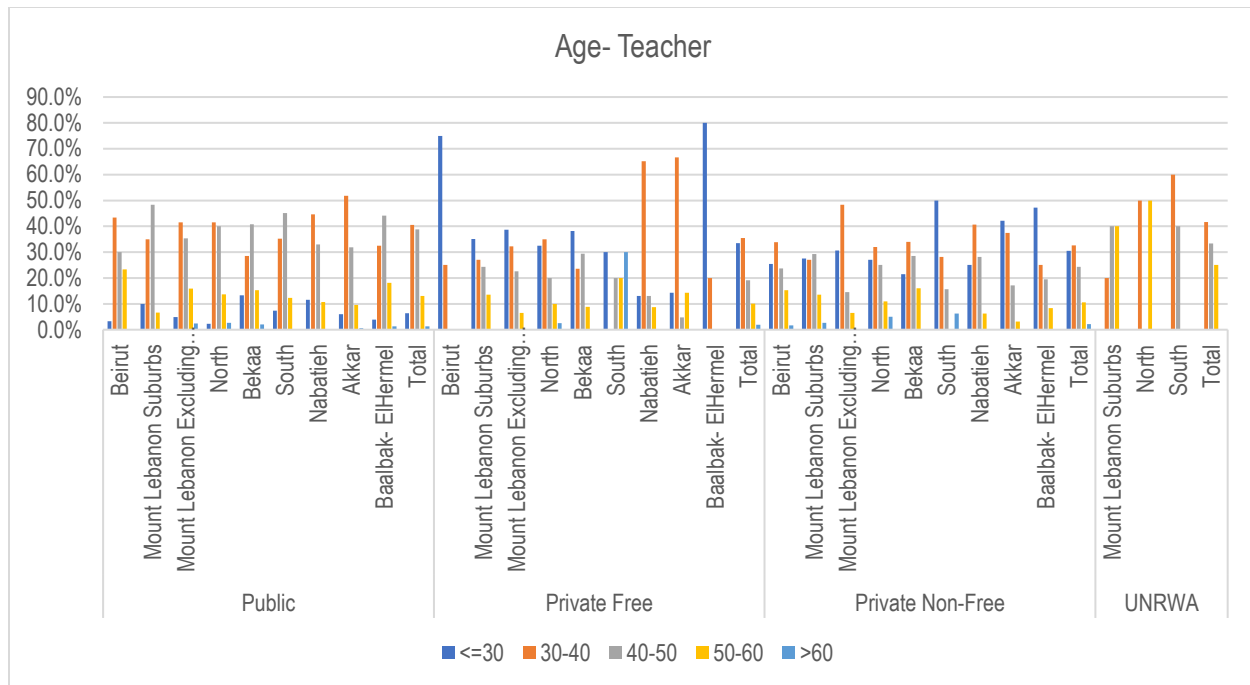


Chart (4): Distribution of Teachers by Age

The most common age group among teachers is 30–40 years, representing 43.6%, while younger age groups (20–30 years) constitute only 6.9% of the total. Older age groups (50 years and above) make up 21.4% of all teachers.

In the public sector, the largest proportion is in the 30–40 years age group, accounting for 43.6%, with lower representation among both younger (23–30 years) and older age groups. The majority of teachers in the private free sector fall within the 20–30 years and 31–40 years age groups, particularly in the governorates of Mount Lebanon (suburbs), North, and Bekaa, with reduced presence in older age groups.

In the private non - free sector, there is relatively balanced representation across age groups, with a strong presence of the 40–49 years group. In Beirut, this sector is dominated by teachers in the 40–50 years group, comprising 35.6%, followed by the 30–40 years group at 25.4%.

Governorates like Akkar, Baalbek-Hermel, and North show a lack of younger teachers (20–30 years), unlike South and Nabatiyeh, where the 20–30 years age group represents the largest share of teachers in the private non free sector.

Overall, the results indicate that both public and private sectors rely heavily on older teaching staff, emphasizing the need for strategies to attract younger professionals. The private sector demonstrates greater flexibility in integrating younger coordinators compared to the public sector, which shows a significant shortage of younger professionals. The private based sector displays greater dynamism in employing younger coordinators, while the public sector underrepresents younger age groups, highlighting an urgent need for programs to rejuvenate the workforce.

2. Gender Results

2.1. Percentage Distribution of Principals by Gender Category

The following chart illustrates the distribution of principals by gender.

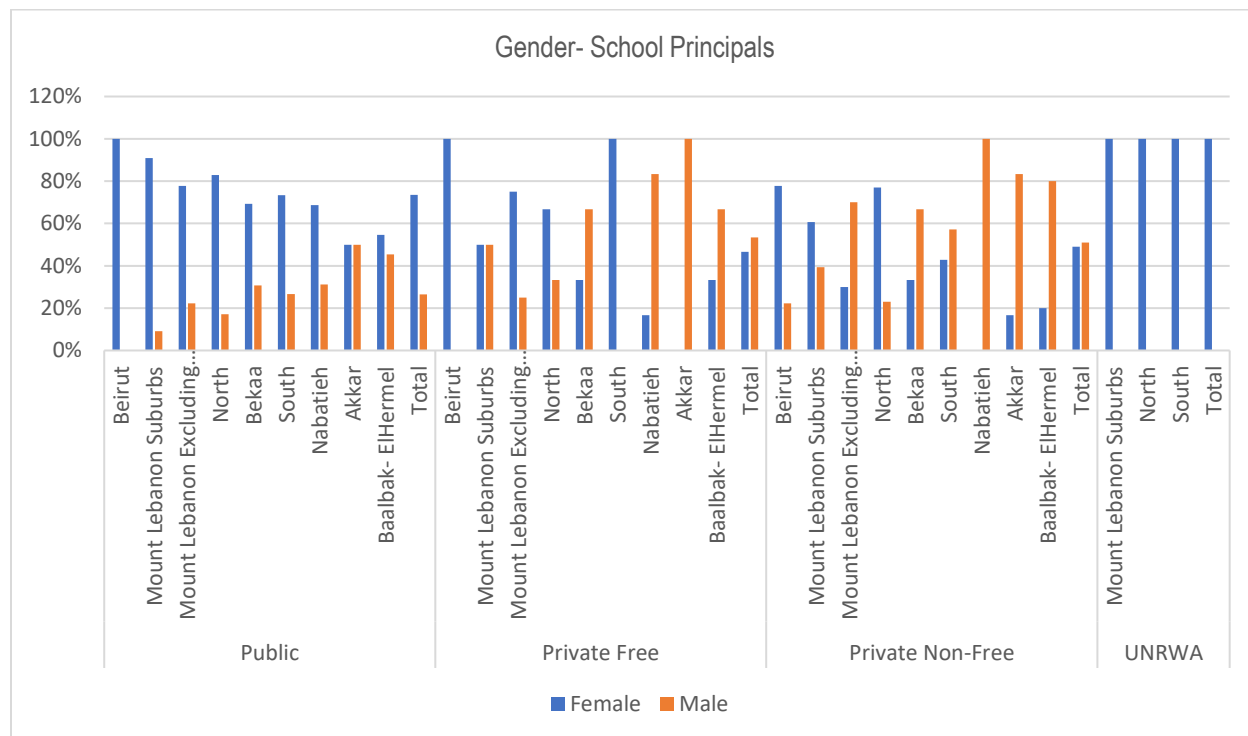


Chart (5): Distribution of Principals by Gender

In the public sector, females constitute 73.5%, while males account for 26.5%. In the private free sector, there is a relative gender balance, with females representing 46.7% and males 53.3%. Similarly, in the private non free sector, females make up 49%, and males 51%. The UNRWA sector, however, is entirely represented by females, with a 100% female presence.

Across governorates, there is a significant dominance of female principals in Beirut, reaching 100% in both the public and private free sectors. Female principals in the Mount Lebanon (suburbs) governorate also hold a notable share of 90.9% in the public sector. On the other hand, the Bekaa and Nabatiyeh governorates show relatively higher proportions of male principals compared to other regions in the private free sector. The Akkar governorate demonstrates an equal gender distribution in the public sector, with 50% for each gender.

It is evident that female principals constitute the majority in most educational sectors, except for the private non free sector, which shows a relatively balanced representation, while the UNRWA sector demonstrates complete female dominance.

2.2. Percentage Distribution of Supervisors by Gender Category

Female supervisors represent a total of 75.5%, distributed across sectors as follows: 80.6% in the public sector, 71% in the private free sector, 68.4% in the private non free sector, and 33.3% in the UNRWA sector, which shows the lowest female representation compared to other sectors. Male supervisors make up 24.5% across all sectors.

The high percentage of females in the public sector can be attributed to employment policies encouraging female participation. The following graph illustrates the distribution of supervisors by gender.

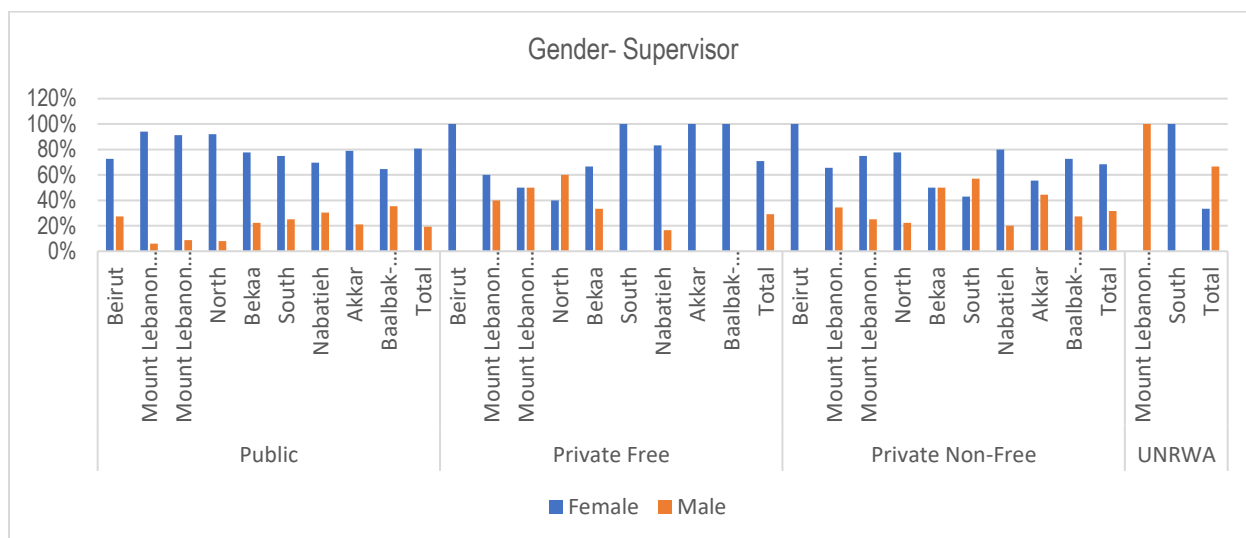


Chart (6): Distribution of Supervisors by Gender

Thus, a greater dominance of female supervisors is observed across all sectors except UNRWA.

2.3. Percentage Distribution of Coordinators by Gender Category

The following chart shows the distribution of coordinators by gender.

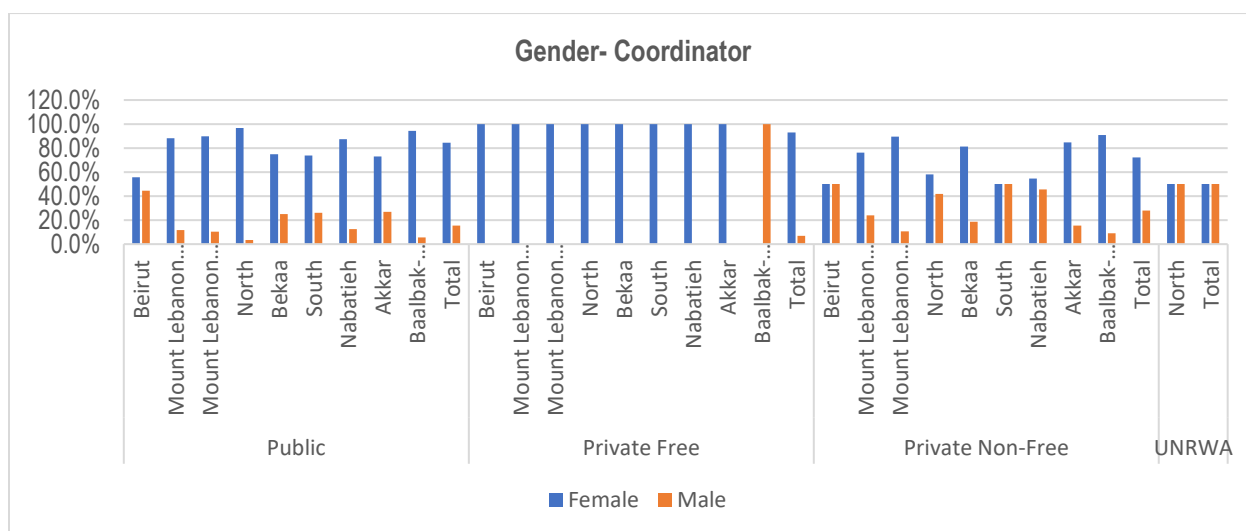


Chart (7): Distribution of Coordinators by Gender

Females represent 80.3% of the total number of coordinators, with 84.6% in the public sector, 93.1% in the private free sector, and 72.1% in the private non free sector. Females make up half of the coordinator sample in UNRWA (50%). Males represent 19.7% of the total number of coordinators across all sectors.

In the public sector, the percentage of females is notably higher than that of males in all governorates, ranging from 55.6% in Beirut to 96.6% in the North, with an overall average of 84.6% for females and 15.4% for males. In the free private sector, females form the majority in most governorates, with the percentage reaching 100% in the majority of the governorates, except for Baalbek-Hermel where males represent 6.9%. In the private non free sector, the percentages vary more widely, with Beirut and the North showing equal gender distribution (50% for each), while other governorates show a clear predominance of females, such as Mount Lebanon (except for the suburbs) with 89.5%. In UNRWA schools, the percentages are equal for males and females, each at 50%, in the North. Overall, females account for 80.3% compared to 19.7% for males across all sectors and governorates.

The overall results indicate that females represent the majority in all sectors, with higher percentages in the public and free private sectors. UNRWA shows a relative balance between the genders.

2.4. Percentage Distribution of Teachers by Gender

The following chart shows the distribution of teachers by gender.

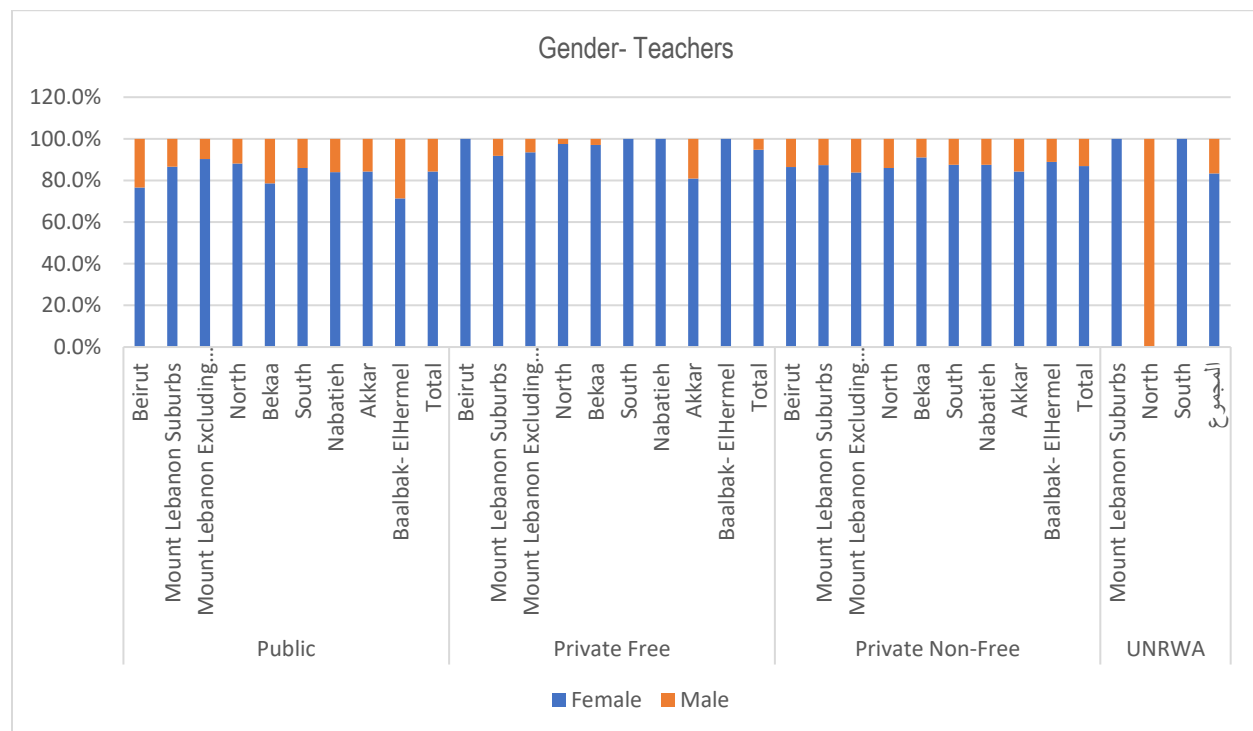


Chart (8): Distribution of Teachers by Gender

The total number of female teachers in the sample is 86.4%, with 84.4% in the public sector, 94.7% in the free private sector, and 86.9% in the non-free private sector. In UNRWA, the percentage is 83.3%. In contrast, the total number of male teachers is 13.6%.

Female teachers represent 84.5% of the teachers in Beirut Governorate, particularly in the free private sector, where the percentage of female teachers is 100%. In Mount Lebanon (suburbs), females account for 88% of the total number of teachers. In the North Governorate, the percentage of males is slightly higher in the non-free private sector, as well as in the Beqaa and Baalbek-Hermel governorates, where the percentage of males is relatively high in the public sector. Females are strongly represented in all sectors in the South and Nabatieh Governorates.

Overall, females represent the vast majority in all governorates and sectors, especially in the public sector in Beirut and Mount Lebanon, with a significant increase in the percentage of females in the free private sector. Males are more prominent in the public sector in the Beqaa and Baalbek-Hermel Governorates compared to others. There is a large presence of females among teachers in the free private sector, while the non-free private sector shows a relatively balanced gender distribution. In the UNRWA sector, there is a varied distribution across categories, with females dominating in the categories of principals and teachers.

These results indicate a pivotal role for females in the education sector, with clear disparities between sectors and governorates. The overall distribution reflects a culture that encourages females in formal education, while the private sector shows a relatively balanced gender representation in some categories.

3. Results of Employment Status

3.1. Percentage Distribution of Principals by Employment Status

The following chart shows the distribution of principals by employment status.

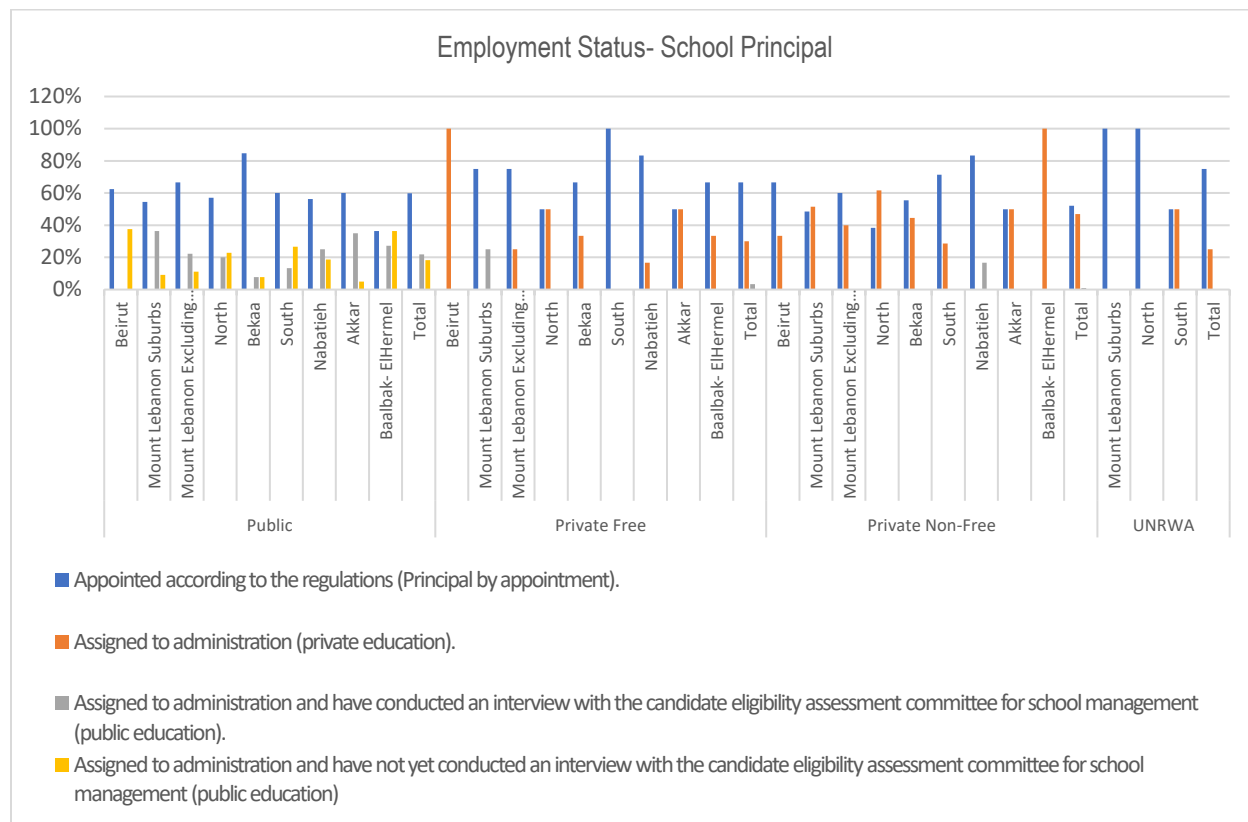


Chart (9): Distribution of Principals by Employment Status

The distribution of school principals by employment status across all sectors and governorates is classified as follows: those "appointed according to regulations" constitute 58.1% of the total workforce. Principals "assigned to administration" in the private education sector represent 20.1%, while those "assigned to administration with an interview" in the public sector account for 12.2%, and those "assigned to administration without an interview" make up 9.7%.

The public education sector holds the largest share (52.7%), with a significant concentration of "appointed according to regulations" principals (59.9%), followed by those "assigned to administration with an interview" (21.8%) and "assigned to administration without an interview" (18.4%). In Mount Lebanon (excluding suburbs), those appointed according to regulations make up 66.7%, followed by those assigned with interviews (22.2%) and without interviews (11.1%).

In Beirut, 62.5% of public-school principals are appointed according to regulations, while 37.5% are assigned without interviews. In the North, 57.1% are appointed according to regulations.

The private, non-free education sector ranks second (35.1%), with a high percentage of "assigned to administration" principals (46.9%), while the majority are "appointed according to regulations"

(52%). For the free private education sector, which represents 10.8% of the total, the majority are "appointed according to regulations" (66.7%) compared to 30% "assigned to administration." In the North, the proportions are evenly split between those appointed according to regulations and those assigned to administration (50% each).

In the UNRWA sector, which accounts for 1.4% of the total, the majority are "appointed according to regulations" (75%).

In the Bekaa, 84.6% of public-school principals are "appointed according to regulations," followed by those assigned to administration with or without interviews (15.4%, equally split). In free private education, the majority are "appointed according to regulations" (66.7%) compared to 33.3% assigned to administration. In private, non-free education, those appointed according to regulations make up 55.6%, compared to 44.4% assigned to administration.

In the South, 60% of principals are "appointed according to regulations," followed by those assigned without interviews (26.7%) and with interviews (13.3%). In free private education, all principals are "appointed according to regulations" (100%), while in private, non-free education, 71.4% are appointed according to regulations, compared to 28.6% assigned to administration. In the UNRWA sector, the proportions are evenly split between those appointed according to regulations and those assigned to administration.

In Nabatieh, 56.3% of public-school principals are "appointed according to regulations," followed by those assigned with or without interviews (43.7%), of which 25% are appointed after interviews. In free private education, 83.3% are "appointed according to regulations," compared to 16.7% assigned to administration, with similar proportions in private, non-free education.

In Akkar, 60% of public-school principals are "appointed according to regulations," followed by those assigned with or without interviews (40%). In free and private non-free education, the proportions are evenly split between those appointed according to regulations and those assigned to administration.

In Baalbek-Hermel, the lowest percentage of principals appointed according to regulations in public education is recorded (36.4%), while those assigned with or without interviews account for the remaining 63.6%, of which 27.3% were assigned after interviews. In free private education, 66.7% are "appointed according to regulations," while 33.3% are assigned to administration. In private, non-free education, all principals are assigned to administration (100%).

The findings indicate that the public education sector represents the largest share of principals (52.7%), with a predominance of "appointed according to regulations" (59.9%). The private, non-free education sector ranks second (35.1%), showing a near balance between those appointed according to regulations and those assigned to administration. Most principals in free private education are "appointed according to regulations," while most principals in the UNRWA sector are also "appointed according to regulations."

It is evident that "appointed according to regulations" constitutes the largest proportion of principals in most governorates, with a significant decline observed in Baalbek-Hermel.

3.2. Percentage Distribution of Supervisors by Employment Status

The vast majority of supervisors are in permanent positions (84.8%), reflecting significant job stability. The proportion of contractors is no more than (12%) of the total, while lower proportions are seen in other categories such as "temporary" or "hired".

Public education shows very high proportions of supervisors in permanent positions (100% in most governorates). Private education, whether free or non-free, relies more on contracts compared to public education, especially in areas like the North and Akkar, as shown in the following chart:

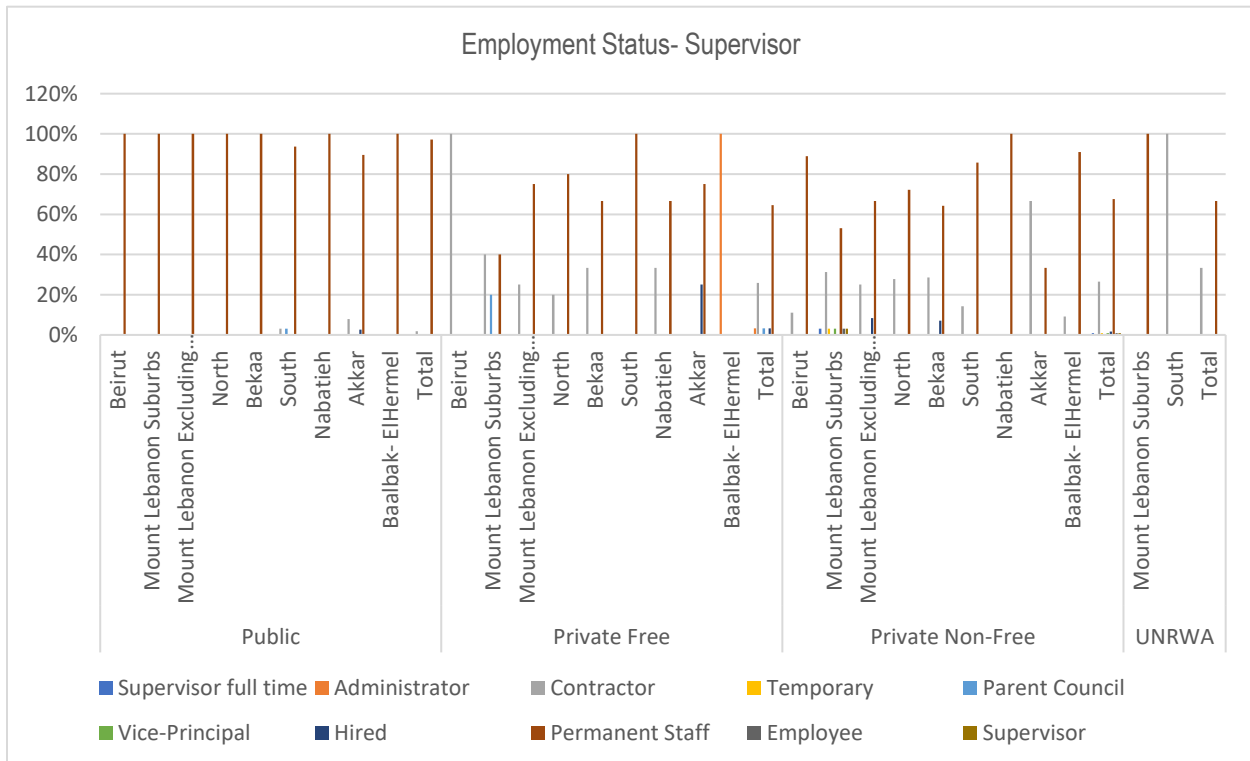


Chart (10): Distribution of Supervisors by Employment Status

The governorates of Akkar and the South show higher percentages of contracted supervisors compared to other governorates. In the private non-free education sector, a significant percentage of supervisors are working on contracts, such as in Akkar (66.7%).

In UNRWA, all supervisors are part of the permanent staff, except for a few cases on contracts.

In comparison, the public education sector shows significant stability through reliance on permanent staff supervisors and principals. The percentages of contracted supervisors are very limited in this sector.

Private education relies on a mix of permanent staff and contracted workers, with notable differences between the free and non-free sectors.

The governorates of Baalbek-Hermel and the North show higher reliance on acting or contracted supervisors.

3.3. Percentage Distribution of Coordinators by Employment Status

The "Permanent Staff" category is the largest employment group for coordinators, representing (72.4%) of the sample. This category is most common in the public sector, with (79.3%). Contracted coordinators form the second largest employment group, representing (22.6%) of the sample. This group is more prominent in the private non-free sector, with (32.1%). Other categories (Temporary, Part-time, Parent Council, or Hired) together represent a small portion of the sample, at (3.6%), with each individual category contributing less than (2%). The following chart illustrates these results:

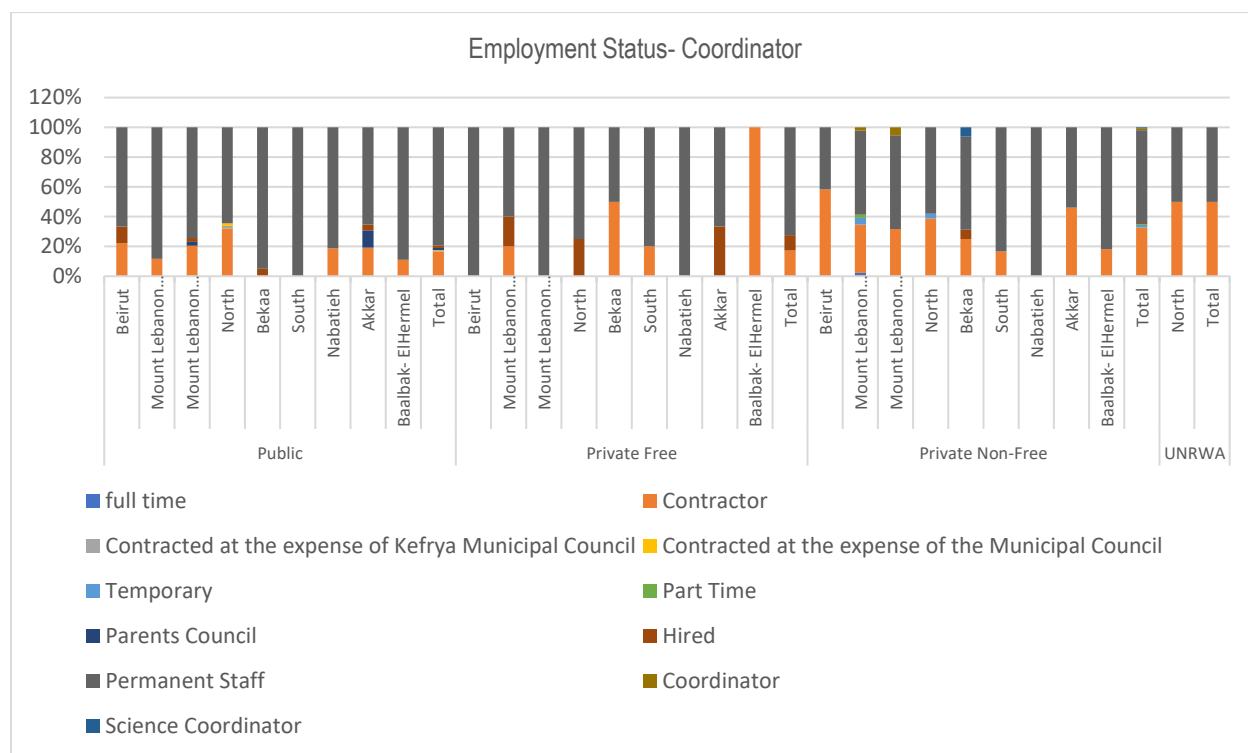


Chart (11): Distribution of Coordinators According to Employment Status

According to the sectors, the public sector relies primarily on permanent staff (79.3%), reflecting job stability. The percentage of contracted coordinators is 16.7%, making them the second largest group of coordinators. The free private sector is similar to the public sector, with the "permanent staff" category dominating at 72.4%, while contracted coordinators represent a notable minority at 17.2%, and "externally hired" coordinators account for 10.3%, being more present in this sector than in others.

The private non-free sector shows a more diverse employment distribution compared to the public and free private sectors. Permanent coordinators make up the majority at 62.4%, while contracted

coordinators represent a much higher percentage (32.1%) compared to other sectors, indicating greater flexibility in hiring. The results from UNRWA do not show significant trends due to the small sample size (only two coordinators).

It is concluded that coordinators in the "permanent staff" category constitute the majority across all sectors, with the highest concentration in the public sector (79.3%). It is also concluded that the private non-free sector has a higher representation of contracted coordinators, making up 32.1% of the private non-free sector sample, which is significantly higher than in the public sector (16.7%) or the free private sector (17.2%).

In the public sector, there are employees hired through Parent Councils (1.6%) and externally hired (1.6%).

The high percentage of coordinators in the permanent staff category in the public education sector (79.3%) indicates a commitment to stability and continuity, which likely enhances educational quality through experienced leadership. The 32.1% of contracted coordinators in the private non-free sector indicates a flexible employment model. Hiring by Parent Councils (1.6%) and externally hired staff (1.6%) in the public sector reflects a collaborative approach, which can improve decision-making and student support.

3.4. Percentage Distribution of Teachers According to Employment Status

The following chart shows the distribution of teachers according to their employment status.

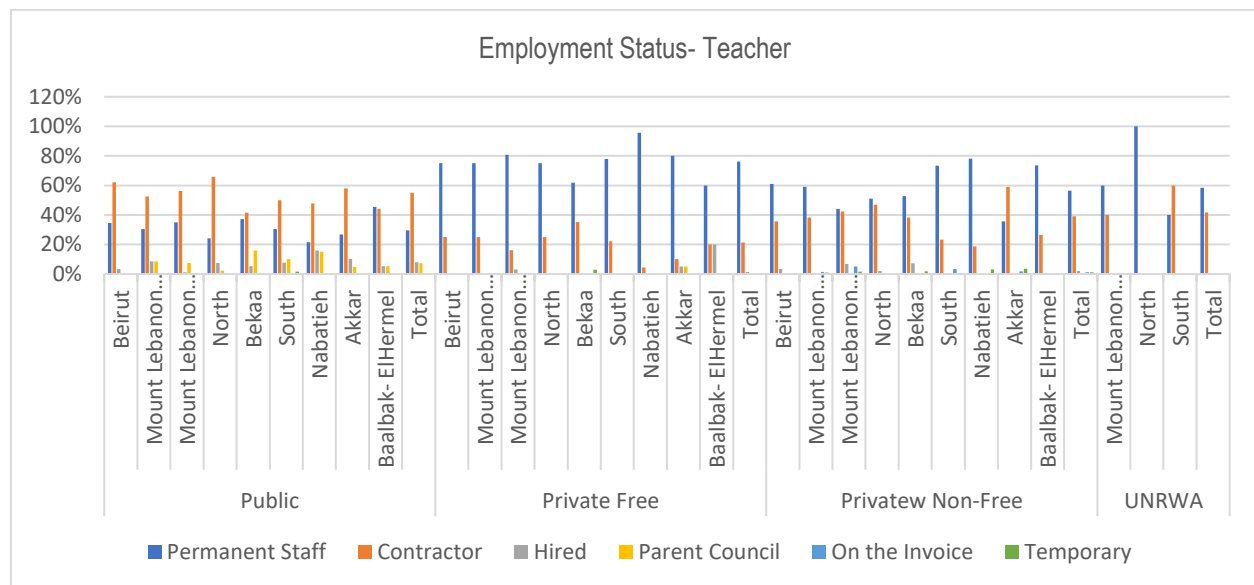


Chart (12): Distribution of Teachers by Employment Status

In the public sector, "contracted" teachers, under various titles according to the responses of the surveyed teachers, make up the majority at 70.5%, while "permanent" teachers constitute 29.5%. In free private education, the majority are "permanent" teachers at 76.2%, while in non-free private education, the percentage of "permanent" teachers is lower than in the free private sector but higher

than in the public sector, at 56.4%. The UNRWA is similar to the non-free private sector, with "permanent" teachers representing 58.3%.

"Permanent teachers" make up nearly a third of the teachers in Beirut at 34.5% of the total teachers in the public sector. In the free private sector in Beirut, the percentage of "permanent teachers" is high at 75%. In the non-free private sector in Beirut, "permanent teachers" also represent a high percentage at 61%.

In Mount Lebanon – suburbs, "permanent teachers" in the public sector form less than a third at 30.5%. In the free private sector, "permanent teachers" represent 75%, while in the non-free private sector, the percentage is 59%.

In Mount Lebanon – excluding suburbs, "permanent teachers" in the public sector represent 35%. In the free private sector, they make up 80.6%, and in the non-free private sector, they represent 44.1%.

In the North governorate, "permanent teachers" constitute a quarter of the teachers in the public sector at 24.2%. In the free private sector, "permanent teachers" represent 75%, while in the non-free private sector, "permanent teachers" make up 51%.

In the Bekaa governorate, "permanent teachers" form the second-highest percentage among the provinces in the public sector at 37.2%, compared to 61.8% in the free private sector and 52.7% in the non-free private sector. In the South governorate, "permanent teachers" in the public sector make up 30.5%, compared to 77.8% in the free private sector, which is the most common status, and 73.3% in the non-free private sector, the second-highest in this sector.

In Nabatieh governorate, "permanent teachers" represent the lowest percentage among the provinces in the public sector at 21.5%, and this category dominates in the free private sector at 95.7%, as well as in the non-free private sector, being the most common employment status at 78.1%.

In Akkar governorate, "permanent teachers" represent nearly a quarter of the sample at 26.8% in the public sector, 80% in the free private sector, and the lowest percentage among the provinces in the non-free private sector at 35.7%. In Baalbek-El Hermel, this category records the highest percentage in the public sector at 45.5%, while it forms 60% in the free private sector and the second-highest percentage at 73.5% in the non-free private sector.

It can be concluded that the dominant employment status for teachers in the public sector is contracting under various titles (70.5%) (contracted, hired, parent council, on invoice, and temporary), which is the highest percentage among all sectors.

4. Results of the Highest Academic Degree

4.1. Percentage Distribution of Principals by Academic Degree

The most common academic qualifications in the public education sector are a bachelor's degree (29.3%), a teaching diploma (27.9%), and the combined percentage of holders of master's and doctoral degrees is 16.3%, reflecting a reliance on academic competencies. The chart illustrates these results.

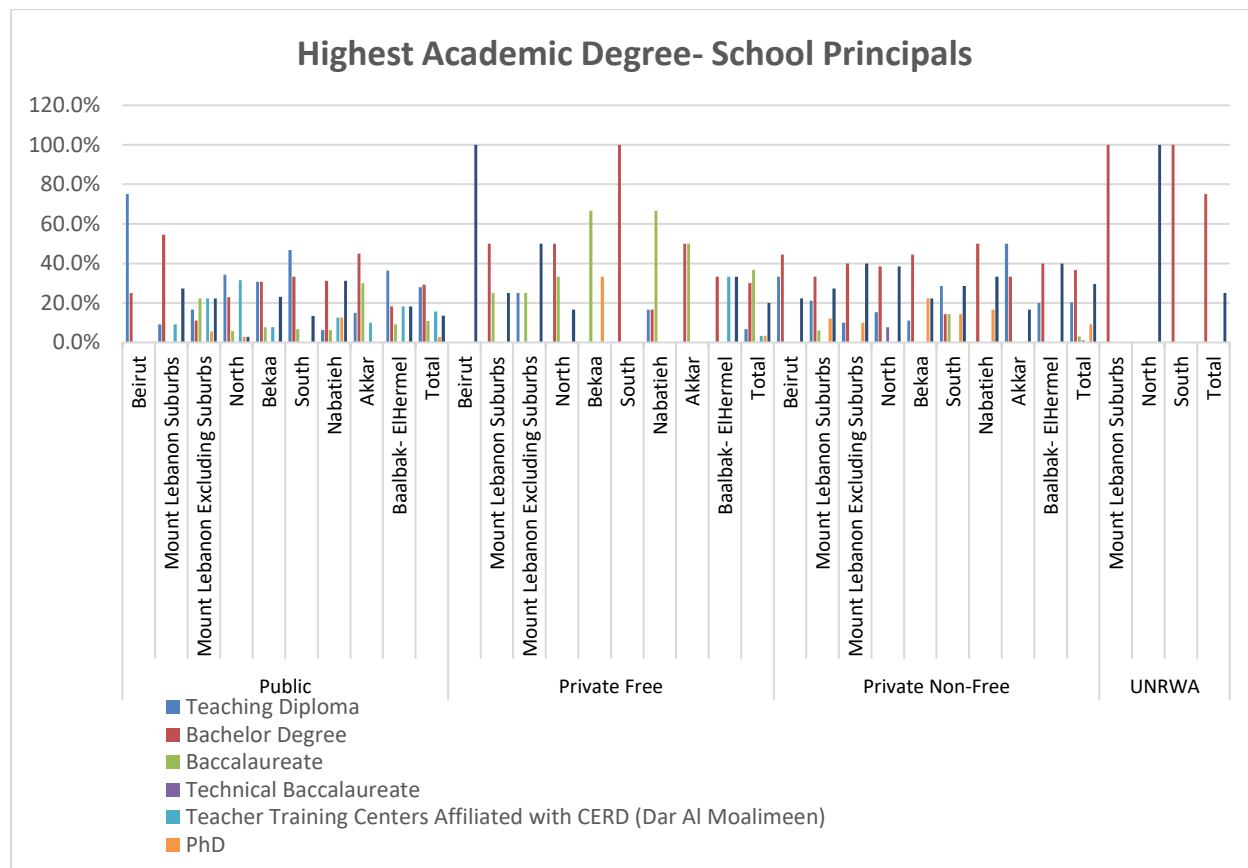


Chart (13): Distribution of Principals by Academic Degree

In the free private education sector, the most common qualification is the baccalaureate at 36.7%, while the percentage of those holding higher degrees (master's and doctorate) is low, comprising only 23.3%. In private non-free schools, the most common qualification is a bachelor's degree at 36.7%, followed by a master's at 29.6%, and a doctorate at 9.2%, indicating a greater emphasis on advanced qualifications compared to the free tuition sector. In UNRWA schools, 75% of principals hold a bachelor's degree, while 25% have a master's degree.

Across the governorates, in Beirut, 75% of principals in the public sector hold a teaching diploma and 25% hold a bachelor's degree, while in private free schools, all principals hold a master's degree. In private non-free tuition schools, 77.8% hold degrees, including 33.3% with a bachelor's and 22.2% with a master's degree. In Mount Lebanon suburbs, 54.5% of public sector principals hold a bachelor's degree, and 27.3% hold a master's degree. In other parts of Mount Lebanon, the percentages of principals with a master's degree, teacher training centers' degree, and a baccalaureate are equal at 22.2% each in the public sector.

In the North, there is a relatively balanced distribution between principals with teaching diplomas, bachelor's degrees, and teacher training qualifications, but the percentage of those with a master's degree is minimal (2.9%), the lowest among regions. In the Bekaa region, there is a relative balance between those with teaching diplomas and bachelor's degrees (30.8% each), with a notable percentage holding a master's degree (23.1%) in the public sector. In the South, 80% of principals hold teaching or bachelor's degrees, but advanced degrees are less common compared to other governorates. In Akkar, most principals hold bachelor's degrees, with no representation of advanced degrees in the public sector.

Overall, bachelor's degrees are the most common qualification at 32.6%. The public sector shows a relatively balanced distribution of qualifications, reflecting a trend toward enhancing competencies.

4.2. Percentage Distribution of Supervisors by Academic Degree

The following chart shows the distribution of supervisors by academic degree.

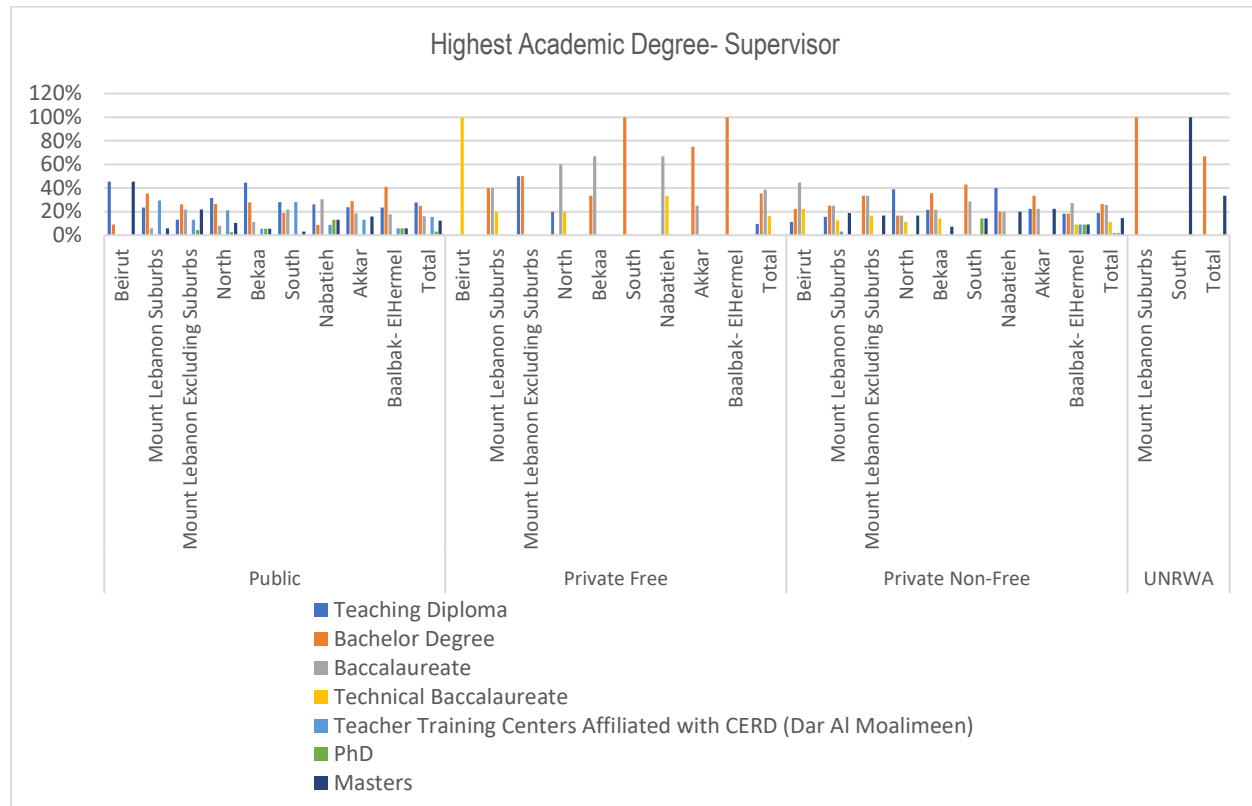


Chart (14): Distribution of Supervisors by Academic Degree

In public education, 27.6% of supervisors hold a teaching degree, and the combined percentage of those holding a Master's or Doctorate is 15.6%. Additionally, 31.8% of supervisors hold certificates below the university level (Baccalaureate and Teacher Training Centers' Diploma).

In free private education, the most common degree is the baccalaureate, at 38.7%, and there are no supervisors holding a Master's or Doctorate, meaning the majority of supervisors are non-

university graduates (54.8%). In contrast, in non-free private education, 26.5% of supervisors hold a bachelor degree, and the percentage of those holding a Master's degree reaches 14.5%, which is the highest among the private sectors, with a limited representation of Doctorate holders (1.7%).

By governorate, in Beirut, public education focuses on higher degrees, with a significant percentage of master's holders (45.5%). Free private education in this governorate is dominated by holders of technical baccalaureates. In Mount Lebanon and the North, there is a balanced distribution between university and lower degrees, with a notable presence of master's holders in the public sector. In the South and Nabatieh governorates, there are high percentages of lower degree holders, especially in public and free private education. Mount Lebanon (excluding suburbs) combines a mix of bachelor's degrees (41%) and teaching diplomas (17.9%).

It can be concluded that the public sector shows a balance between higher and lower degrees, with a slight emphasis on higher competencies. Free private education suffers from a lack of qualifications, with a heavy reliance on baccalaureate holders. The non-free private sector shows relative diversity but lacks a strong representation of higher competencies.

4.3. Percentage Distribution of Coordinators by Academic Degree

The following chart shows the distribution of coordinators by academic degree.

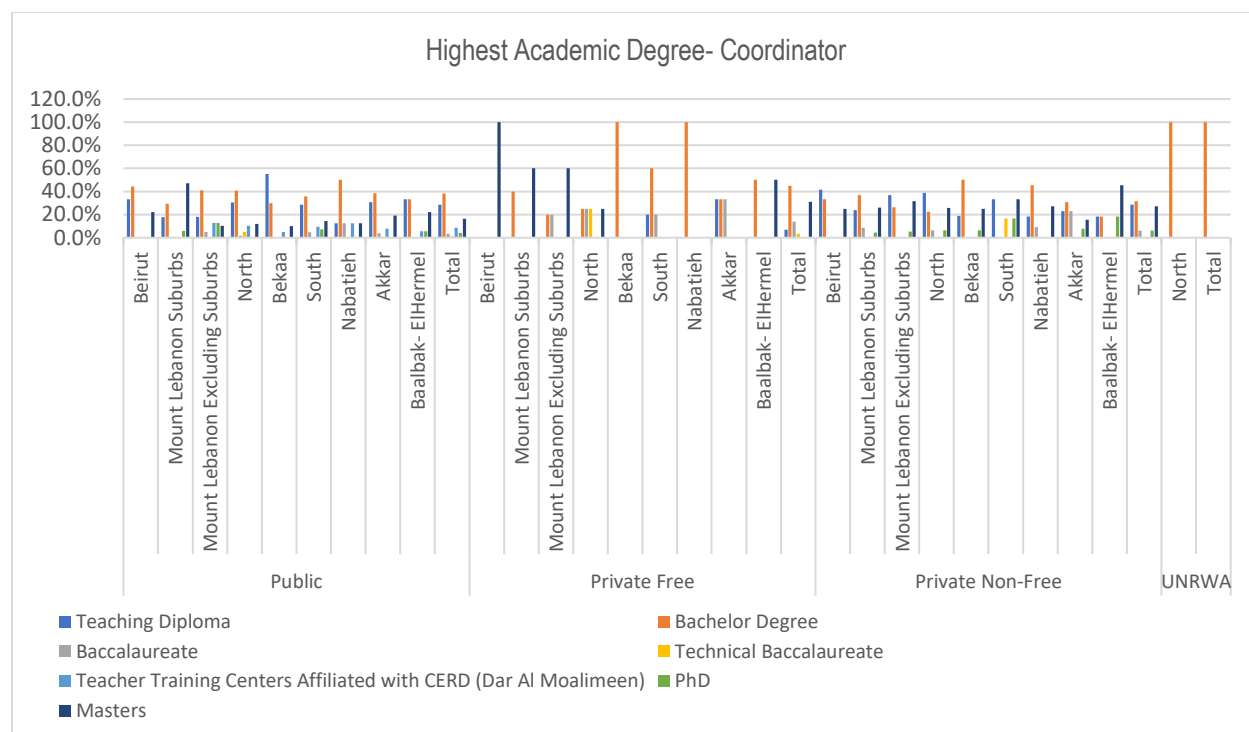


Chart (15): Distribution of Coordinators by Academic Degree

In public education, a bachelor's degree (38.2%) is the most common qualification, and the percentage of those holding a Master's or Doctorate reaches 20.4%. In free private education, 44.8% of coordinators hold a bachelor's degree, while 31% of the sample holds a Master's degree, with no Doctorate holders.

In non-free private education, 31.5% of coordinators hold a bachelor's degree, and 27.3% hold a Master's degree, which is a significant proportion. All coordinators in UNRWA hold a bachelor's degree.

Master's and Doctorate degrees are concentrated in both the public and non-free private sectors, with the public sector leading in all governorates. The UNRWA sector shows a complete absence of higher competencies, except for the bachelor degree. Beirut and the North stand out as the most distinguished regions for higher degrees.

Public education shows a strong focus on higher qualifications, with a balance between university and lower degrees. Meanwhile, free private education suffers from a lack of higher competencies, which impacts the sector's performance. The non-free private sector shows progress in qualifications compared to the free sector but still needs to improve the representation of higher competencies.

4.4. Percentage Distribution of Teachers by Academic Degree

The following chart shows the distribution of teachers by academic degree.

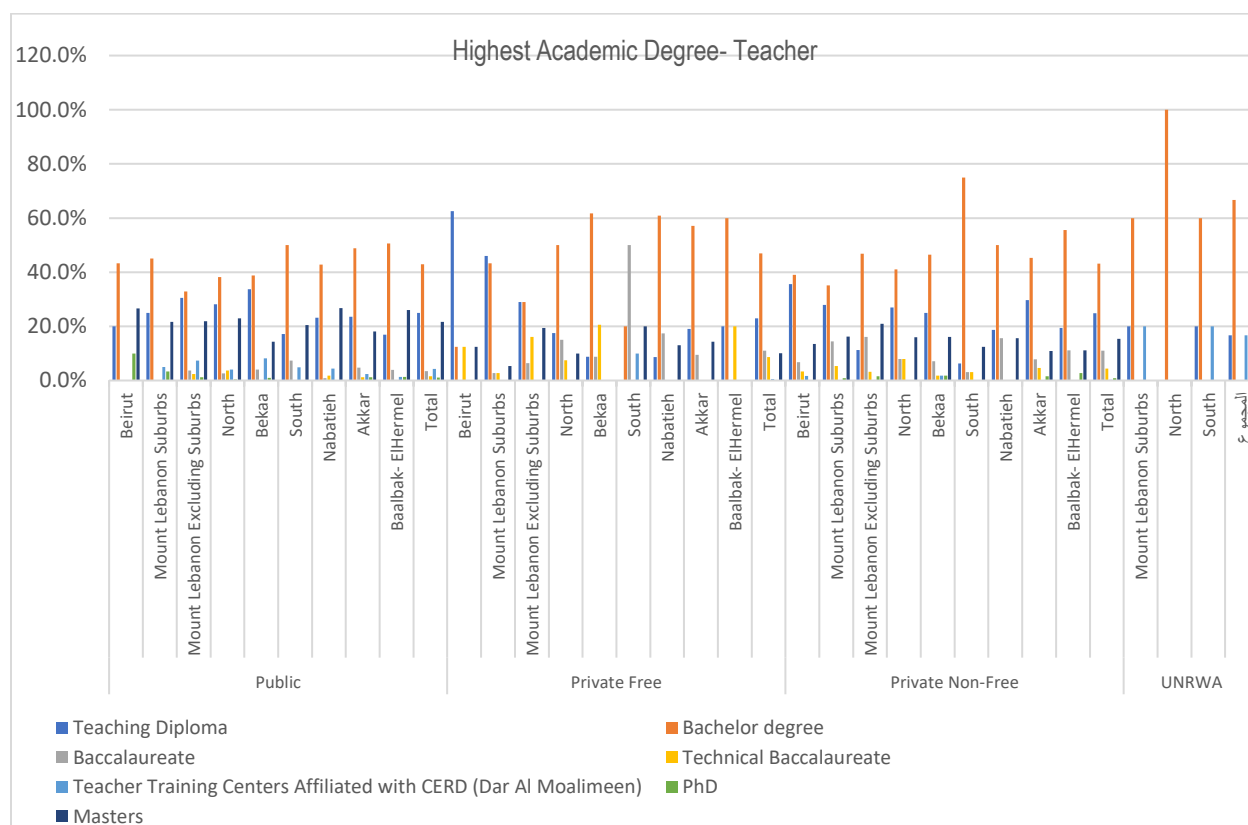


Chart (16): Distribution of Teachers by Academic Degree

In Beirut governorate, the results for the public sector show that 43.3% of teachers hold a bachelor's degree, and 26.7% have a master's degree. In the free private sector, 62.5% hold a teaching diploma, while the non-free private sector has the largest proportion of teachers holding a bachelor's degree at 39%.

In the Mount Lebanon - Suburbs region, 45% of teachers in the public sector hold a bachelor's degree, and 21.7% hold a master's degree. In the free private sector, 45.9% of teachers hold a teaching degree, while 35.1% have a bachelor's degree in the non-free private sector.

In Mount Lebanon - Non-Suburbs, the results for the public sector show that 32.9% of teachers hold a bachelor's degree, and 30.5% have a teaching diploma. In the free private sector, 29% hold either a teaching or bachelor's degree. The non-free private sector has the highest proportion of bachelor's degree holders at 46.8%.

In the North governorate, the results for the public sector show that 38.1% of teachers hold a bachelor's degree, and 28.1% have a teaching diploma. Half of the teachers in the free private sector hold a bachelor's degree (50%), while 41% of teachers in the non-free private sector hold a bachelor's degree.

In the Bekaa governorate, the public sector results show 38.8% of teachers with a bachelor's degree, and 33.7% with a teaching diploma. In the free private sector, 61.8% hold a bachelor's degree, compared to 46.4% in the non-free private sector.

In the South governorate, half of the teachers in the public sector hold a bachelor's degree, and 20.5% have a Master's degree. Half of the teachers in the free private sector hold a high school diploma (Baccalaureate), while 75% in the non-free private sector hold a bachelor's degree.

In Nabatieh governorate, the public sector results show that 42.9% of teachers hold a bachelor's degree, and 26.8% have a Master's degree. This percentage increases in the free private sector, with 60.9% holding a bachelor degree, compared to 50% in the non-free private sector.

In Akkar governorate, the largest percentage of teachers hold a bachelor's degree, with 48.8% in the public sector (compared to 18.1% with a master's degree), 57.1% in the free private sector, and 45.3% in the non-free private sector. The same trend is observed in the Baalbek-Hermel governorate, with the largest proportion holding a bachelor's degree (50.6% in the public sector, compared to 26% with a Master's degree, 60% in the free private sector, and 55.6% in the non-free-private sector).

When we look at the results regarding the highest academic degree held by teachers, we find that across all sectors, the largest percentage is for those holding a bachelor's degree at 43.6%, followed by a teaching diploma at 24.7%, and a Master's degree at 18%.

Based on these results, we conclude that:

The bachelor's degree is the most common qualification among teachers across all governorates and sectors.

Master's degree holders make up a significant proportion, especially in the public sector and some governorates such as Beirut and Mount Lebanon.

Rural governorates such as Akkar and Baalbek show a disparity in the proportion of higher-degree holders compared to urban governorates.

5. Results of the Years of Experience in the Educational Field

5.1. Percentage Distribution of Principals by Years of Experience

The following chart shows the distribution of principals by years of experience in the educational field.

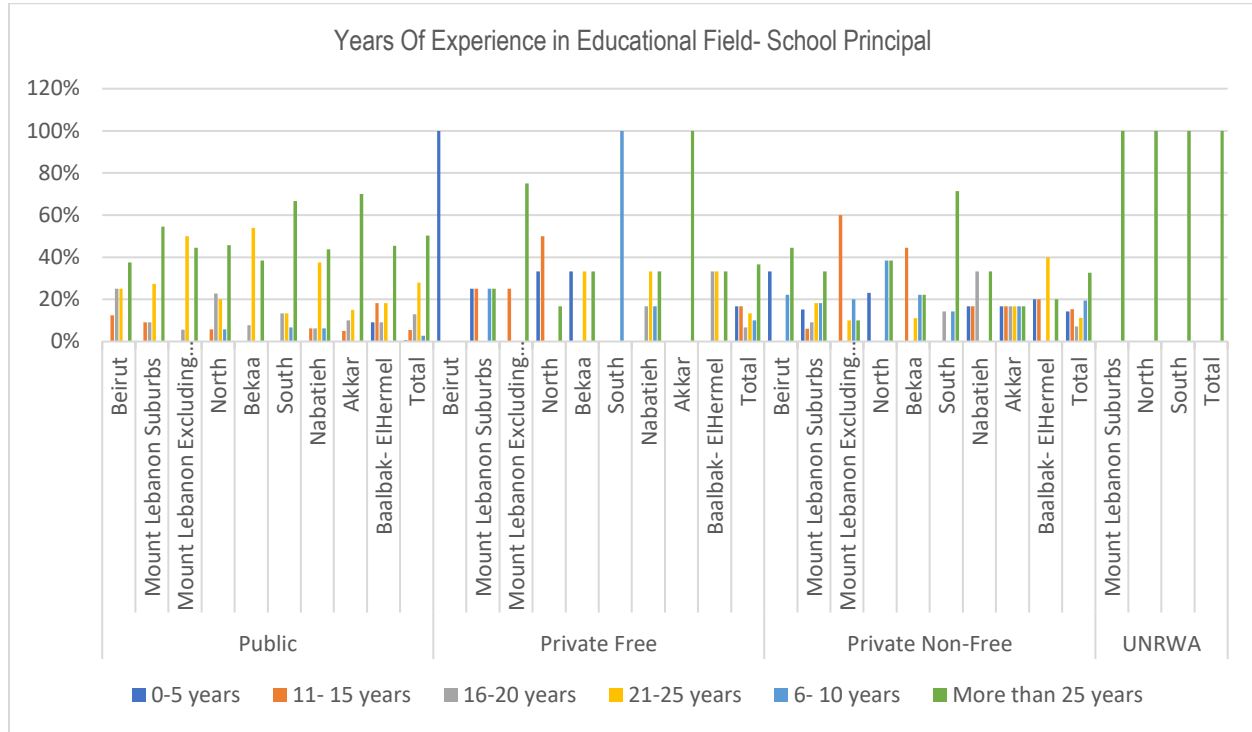


Chart (17): Distribution of Principals by Years of Experience in Education

Years of experience were categorized into five-year intervals. The results show that the largest group in the public sector comprises principals with more than 25 years of experience, accounting for 50.3%, followed by those with 21–25 years (27.9%). The next groups are those with 16–20 years (12.9%), 11–15 years (5.4%), 6–10 years (2.7%), and lastly, 0–5 years, which recorded the lowest percentage (0.7%). More than half of the public sector principals have over 25 years of experience. There is a relatively balanced representation in the 16–25-year range.

The distribution of principals in the free private sector by years of experience is as follows:

The largest group is those with more than 25 years of experience (36.7%). Equal percentages were recorded for the groups 0–5 years and 11–15 years (16.7% each). The percentages drop for the 21–25-year group (13.3%), followed by 6–10 years (10.0%) and 16–20 years (6.7%). This indicates that over one-third of the free private sector principals have more than 25 years of experience, with relatively high representation among those with less than 10 years of experience compared to other groups.

In the non-free private sector, the distribution is as follows:

The largest group comprises principals with more than 25 years of experience (32.7%), followed by those with 6–10 years (19.4%), and 11–15 years (15.3%). The 0–5-year group accounts for 14.3%, while the 21–25-year group is 11.2%, and the smallest group is the 16–20-year range (7.1%). This sector exhibits a moderate base of principals with long experience (up to 25 years) in education, with a relatively balanced distribution among mid-range experience groups (11–25 years). All UNRWA principals have over 25 years of experience.

At the governorate level, the results from Beirut indicate a strong representation of the private non-free tuition sector, where 44.4% of principals have more than 25 years of administrative experience. In the North, 45.7% of principals in the public sector have over 25 years of experience, while Nabatieh records the highest proportion in this category at 70%. In the Bekaa region, the public sector leads with 53.8% of principals having 21–25 years of administrative experience.

The findings reveal that the public sector accounts for the largest percentage of principals with extensive administrative experience (over 25 years) across all governorates. The private non-free tuition sector stands out in Beirut and the South for having principals with new (0–5 years) and intermediate (6–10 years) levels of administrative experience.

Overall, the results highlight a clear variation in years of administrative experience across governorates and sectors, with the public sector generally characterized by long-tenured experience and a diverse distribution across the regions.

5.2. Percentage Distribution of Supervisors by Years of Experience

In the public sector, the results highlight stability in leadership roles, with a predominance of supervisors with very long experience (more than 25 years). However, this may limit innovation in administrative approaches. Governorates like Bekaa and Nabatieh show a high concentration of long-experienced supervisors.

In the free private sector, there is a relatively balanced distribution of age groups and experience levels, although the largest group includes those with short experience (0–5 years, 22.6%). This group is notably prominent in Beirut, while in the South, long-experienced supervisors dominate.

The following chart illustrates these results.

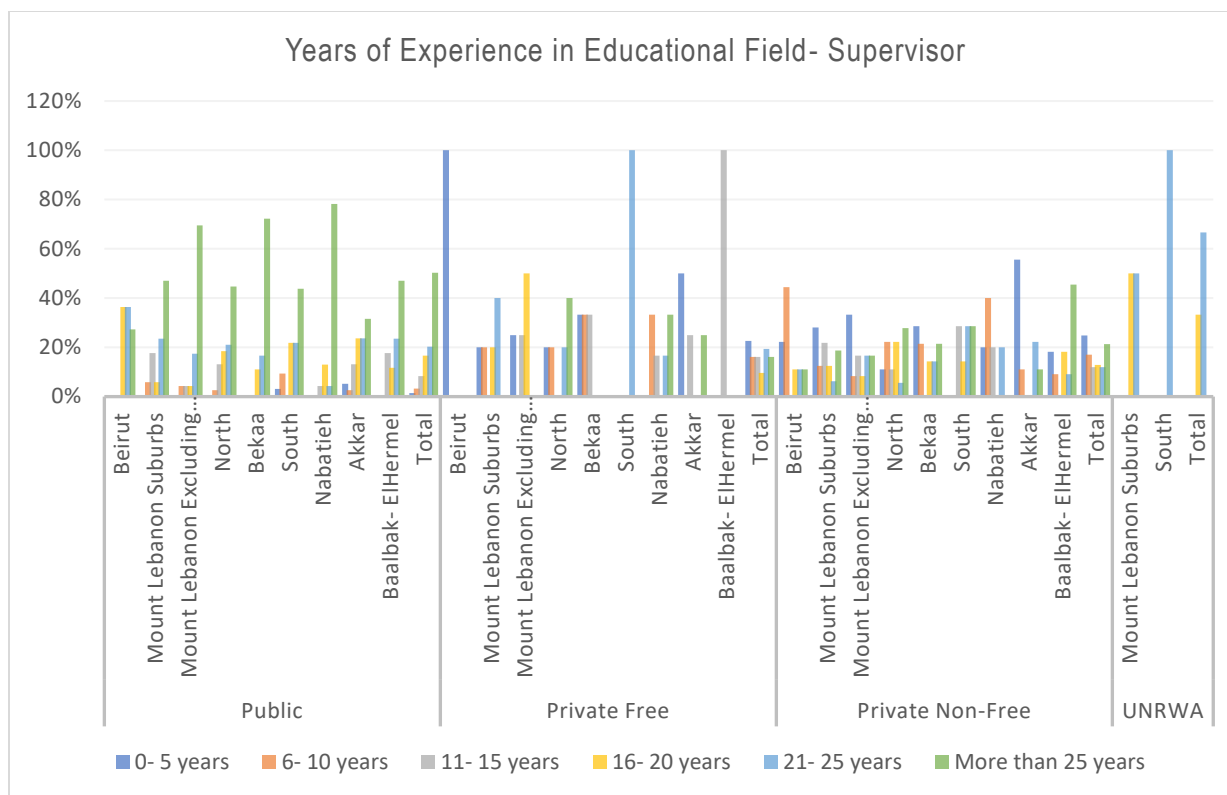


Chart (18): Distribution of Supervisors by Years of Experience in Education

The results for the non-free private sector indicate a notable attraction of new talents, with 24.8% of supervisors having short experience (0–5 years), alongside a significant percentage of very long experience (21.4%). This balance in distribution across different generations reflects administrative diversity across regions. All supervisors in the UNRWA sector have experience ranging between 16 and 20 years.

At the governorate level, the results show strong administrative stability in Beirut and the South due to the clear dominance of very long experience. In contrast, Akkar displays a high percentage of short experience (50%–55.6%), highlighting the presence of new young talents. Bekaa reflects a balance between short and very long experience, indicating diversity in leadership. In suburban Mount Lebanon, there is an overlap between new and veteran staff, creating a dynamic work environment. Meanwhile, Baalbek-Hermel focuses heavily on experienced staff with very long experience.

When comparing sectors, all three sectors (public, free private, and non-free private) rely significantly on less experienced groups (0–5 years). The public sector has the highest percentage in the (0–10 years) range, with a notable weakness in the longer experience categories. On the other hand, the private education sector (both free and non-free) shows relatively better representation of groups with over 20 years of experience compared to the public sector.

At the governorate level, the North and Nabatieh display a significant lack of long-experienced supervisors in the public sector. The free private education sector in Beirut stands out for retaining

experienced and stable professionals. Additionally, the non-free private education sector in the South, Bekaa, and Beirut excels in maintaining expert and stable professionals.

5.3. Percentage Distribution of Coordinators by Years of Experience

The following graph illustrates the results of coordinators' distribution by years of experience.

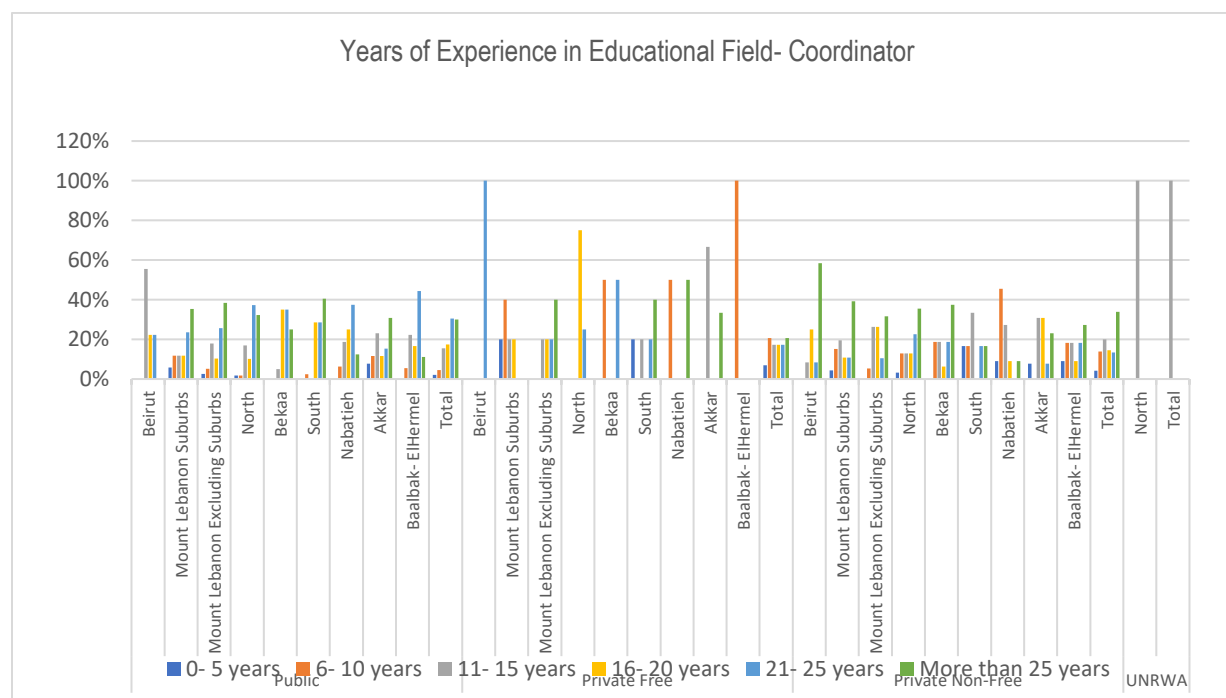


Chart (19): Distribution of Coordinators by Years of Experience

The results for the public sector across governorates indicate that in Beirut, 55.6% of coordinators have 6–10 years of experience, followed by 22.2% with 11–15 years of experience. Notably, there are no coordinators with less than 6 years or more than 15 years of experience, highlighting a limited number of new coordinators.

In subrban Mount Lebanon, there is diverse distribution: 5.9% of coordinators have 0–5 years of experience, 11.8% fall into both the 6–10 and 11–15 years categories, while the largest group (35.3%) has over 25 years of experience, reflecting the presence of highly experienced coordinators.

In the North, only 1.7% have 0–5 years of experience, while the largest proportion (37.3%) has over 25 years. In Bekaa, there are no coordinators with less than 6 years of experience. Instead, the percentages are evenly distributed across the categories, with a focus on those with 11–20 years

of experience. The South demonstrates diversity in experience levels, with 40.5% having more than 25 years of experience.

In the free private sector, all coordinators in Beirut have more than 25 years of experience, reflecting the significant presence of highly experienced coordinators. In contrast, suburban Mount Lebanon shows a high percentage (60%) of new coordinators (0–5 years) and 40% with 6–10 years of experience.

In the non-free private sector, Beirut shows a balance across different categories, with a notable 58.3% of coordinators having 16–20 years of experience.

In public schools in Beirut, there is a significant proportion of coordinators with 21–25 years of experience (31.8%) and over 25 years (30.8%). In the South and Nabatieh, the focus is on higher experience categories (16+ years), with 37.7% and 20.7%, respectively. In Baalbek-Hermel, a strong presence is noted in the 21–25 years category (32.3%) across sectors.

Comparing sectors, the public sector has a significant number of coordinators with over 16 years of experience, especially in the South (40.5%) and North (32.2%). The free private sector shows more balanced experience distribution, with noticeable clusters in both early-career coordinators (0–5 years, 20.7%) and those in advanced stages (20+ years: approximately 20% for each).

The non-free private sector focuses on experienced coordinators, particularly in Beirut, where 58.3% have more than 25 years of experience.

Beirut contrasts sharply across sectors, with a stronger tendency toward highly experienced coordinators in the public sector compared to private sectors. In Akkar, there is a high percentage (61.5%) of coordinators with less than 5 years of experience. In Baalbek-Hermel, 72.2% of coordinators have less than 10 years of experience, and in Nabatieh, 75% are similarly in this early stage. In Bekaa, coordinators generally have medium experience levels (6–10 years).

In UNRWA schools in the North, there are exclusively two coordinators with over 25 years of experience. In Bekaa's free private sector, there is a unique distribution, with coordinators evenly split between new (0–5 years, 50%) and mid-career coordinators (6–10 years, 50%).

5.4. Percentage Distribution of Teachers by Years of Experience

Teacher responses across governorates show that in the free private sector in Beirut, the vast majority (62.5%) have 0–5 years of experience. This is followed by the public sector, where 43.3% of teachers have 11–15 years of experience. In the non-free private sector, experience levels are distributed across various categories, with 27.1% in the 0–5 years range, as illustrated in the following chart.

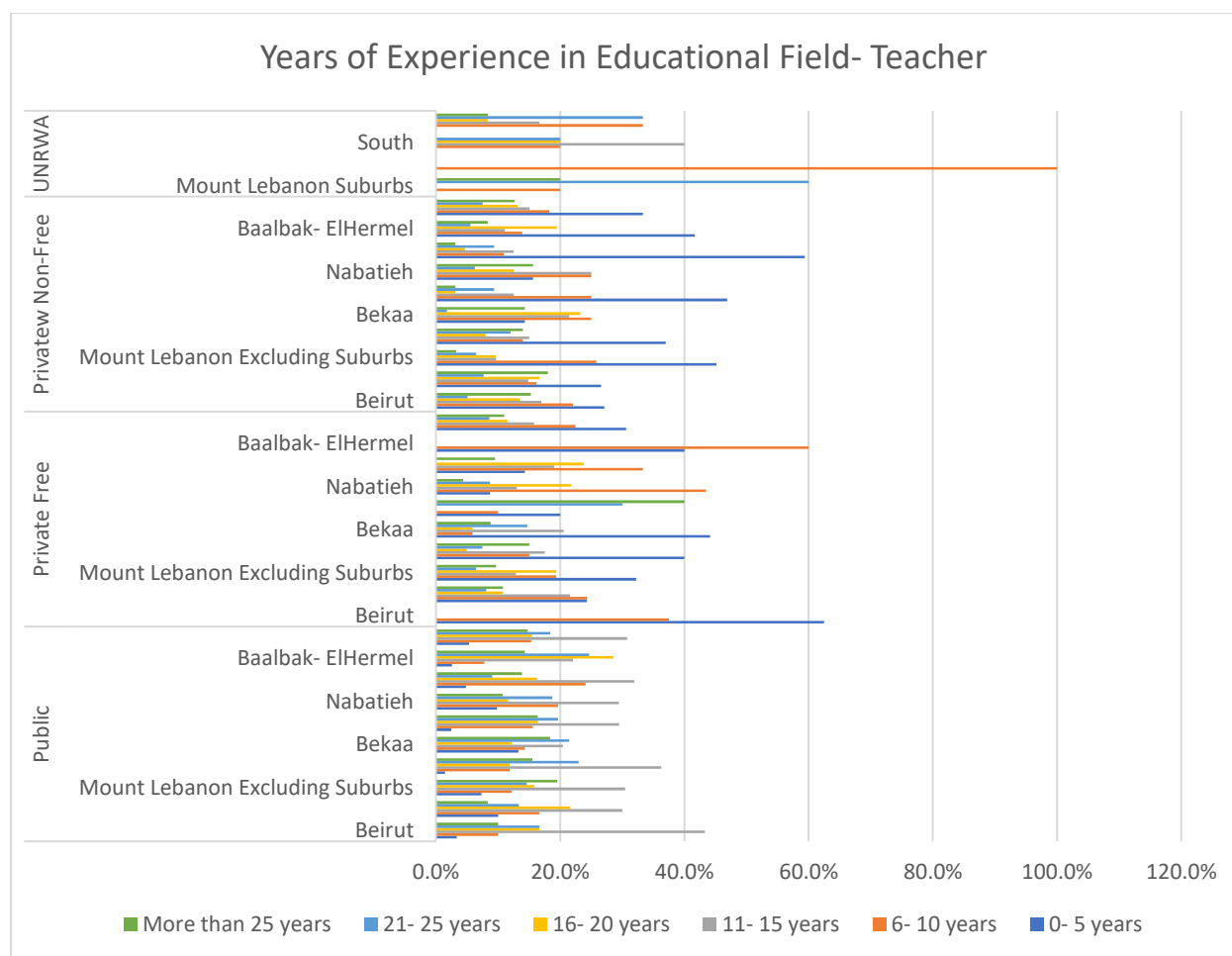


Chart (20): Distribution of Teachers by Years of Experience

In Mount Lebanon suburbs, the public sector results indicated that 30% of teachers have 11–15 years of experience. In the private free sector, 24.3% of teachers fall into both the 0–5 years and 6–10 years categories. In contrast, the most common category in the private non-free sector is 0–5 years, accounting for 26.6%.

For Mount Lebanon (excluding suburbs), the public sector recorded the highest proportion of teachers (30.5%) with 11–15 years of experience. The private free sector reported 32.3% of teachers with 0–5 years of experience, while the dominant category in the private non-free sector was also 0–5 years, at 45.2%.

In the North Governorate, public sector results indicated that the most common category was 11–15 years of experience, at 36.3%. In the private free sector, 40% of teachers have 0–5 years of experience, with almost equal proportions across the private non-free sector, where 37% fall into the 0–5 years category.

In the Bekaa Governorate, the private free sector results resembled those of the North, with the highest proportion (44.1%) being teachers with 0–5 years of experience. In the public sector, the

highest percentage (21.4%) was for teachers with 21–25 years of experience. The private non-free sector recorded 25% in the 6–10 years category.

In the South Governorate, the most common category in the public sector was 11–15 years of experience (29.5%). In the private free sector, 40% of teachers had more than 25 years of experience, while in the private non-free sector, 46.9% had 0–5 years of experience.

The Nabatieh Governorate results indicated a similar trend in the public sector, where 11–15 years of experience was the dominant category (29.5%). In the private free sector, 43.5% of teachers had 6–11 years of experience. In the private non-free sector, 25% of teachers fell into each of the 6–10 years and 11–15 years categories.

In Akkar Governorate, the most common category in the public sector was 11–15 years of experience (31.9%). In the private free sector, the highest proportion (33.3%) was for teachers with 6–10 years of experience, while in the private non-free sector, the largest proportion (59.4%) had 0–5 years of experience.

In Baalbek-Hermel, 28.6% of teachers in the public sector had 16–20 years of experience. In the private free sector, 60% of teachers had 6–10 years of experience, while in the private non-free sector, 41.7% fell into the 0–5 years category.

The most common experience category among teachers in Lebanon is 11–15 years, representing 23.6% of all teachers. Teachers in the private sector are more concentrated in the 0–5 years category compared to the public sector, which has a higher proportion of experienced teachers. Rural areas, such as Baalbek and Akkar, show a higher percentage of teachers with long-term experience.

6. Results Based on Years of Experience in Administration

6.1. Percentage Distribution of Principals by Years of Experience in Administration

The following chart illustrates the distribution of principals based on their administrative experience.

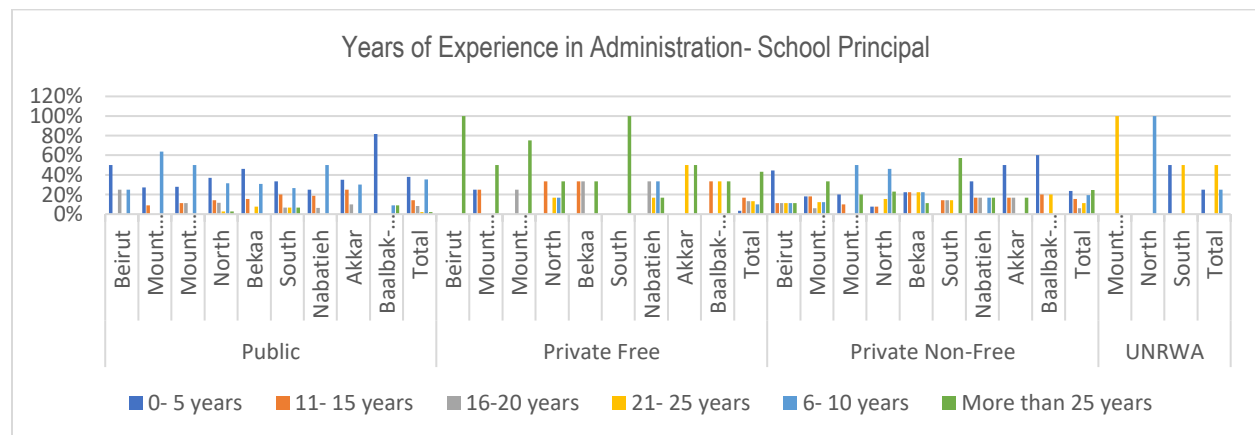


Chart (21): Distribution of Principals by Years of Administrative Experience

The largest group of principals in the public sector comprises those with administrative experience ranging from 0 to 5 years, accounting for 38.1% of the total. This is followed by principals with 6 to 10 years of experience, representing 35.4%. The percentages decrease further with 11 to 15 years of experience at 14.3%, 16 to 20 years at 8.2%, and 21 to 25 years as well as those with more than 25 years of experience both at 2.0%.

This distribution indicates that 73.5% of public-sector principals have relatively recent to mid administrative experience (0–10 years), while those with over 20 years of experience constitute a very small proportion (4%) of the total.

In the private subsidized sector, the scenario is completely different. The majority of principals have held their positions for more than 25 years, accounting for 43.3% of the total. The percentages decline across the other categories, with 16.7% of principals having 11 to 15 years of experience. The number of principals with 16 to 20 years and 21 to 25 years of experience is equal, each representing 13.3%, followed by those with 6 to 10 years at 10.0%, and finally, those with 0 to 5 years of experience at just 3.3%.

This suggests that principals in the private non free sector predominantly fall into two main categories (excluding the least experienced group): those with more than 25 years of experience (43.3%) and those with intermediate experience levels (11 to 25 years).

In the private free sector, the distribution varies significantly from the other sectors. The largest proportion of principals falls into the more than 25 years category (24.5%), followed closely by those with 0 to 5 years of experience (23.5%), the lowest proportion in the private subsidized sector. The 6 to 10 years category accounts for 19.4%, while 11 to 15 years makes up 15.3%. The percentages then decline in the 21 to 25 years category (11.2%) and the 16 to 20 years category (6.1%).

This indicates a relatively uneven distribution in this sector, with the highest combined percentage (48%) split between principals with more than 25 years (24.5%) and those with 0 to 5 years (23.5%) of experience.

Results from the UNRWA sector reveal that 50% of principals have 21 to 25 years of experience, while the remaining are equally distributed between the 0 to 5 years and 6 to 10 years categories, each accounting for 25%.

Across all sectors, principals with 0–5 years and 6–10 years of experience make up approximately 55.9% of the total number of principals. Principals with more than 25 years of experience represent 14.3%, with those in the 0–5 years category forming the largest group in most governorates, particularly in the public sector, which dominates in the short experience categories. Additionally, principals with 6–10 years of experience represent a significant portion across most sectors.

The private non free sector has the highest proportion of principals with long experience (more than 25 years), while the private free sector shows a relatively balanced distribution across all categories. The UNRWA sector relies on principals predominantly with 21–25 years of experience.

6.2. Distribution of Supervisors by Years of Experience in Supervision

The following chart illustrates the distribution of supervisors based on years of experience in supervision.

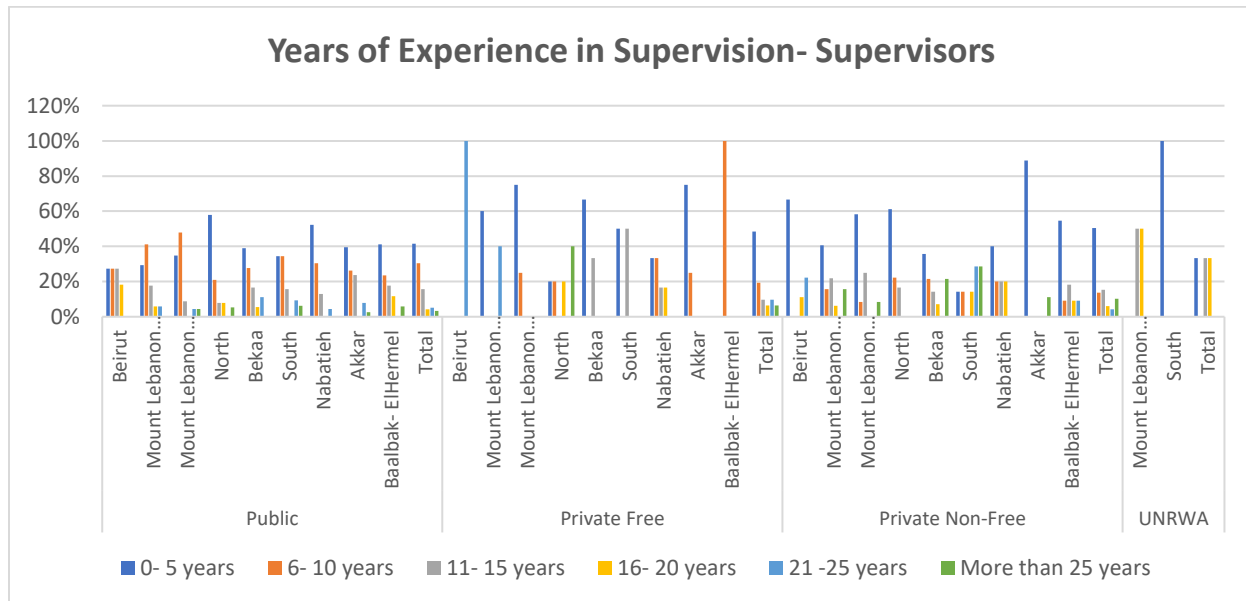


Chart (22): Distribution of Supervisors by Years of Experience in Supervision

The largest percentage of supervisors in the public sector is found in the group with recent experience in supervision (0-10 years), representing 71.9%, with a weak representation from those with long experience (8.3%) in the more than 20 years category. Within this sector, the highest concentrations of less experienced supervisors are found in the northern and Nabatieh governorates, where more than 50% belong to the lower experience categories. In comparison, Baalbek-Hermel and the South have a more varied distribution of experience compared to other governorates.

In the private free sector, there is a clear dominance of those with recent experience (0-5 years), making up 48.4%, with varying representation for those with medium and long experience. Beirut stands out with supervisors having the longest experience (100% in the 21-25 years category).

Mount Lebanon (suburbs) and the North show a strong presence of less experienced supervisors, with some balance in longer experience groups. The Bekaa and Akkar show clear dominance of supervisors with recent experience. Nabatieh shows a relatively balanced distribution across experience groups.

In the private non-free sector, there is a focus on the more recent experience group (0-5 years), with 50.4%, and a moderate presence of those with longer experience (10.3%). Beirut again stands out with supervisors in the 21-25 years category (100%). Mount Lebanon (both sections) and the North show strong representation of less experienced supervisors, with some balance in longer experience categories. The Bekaa and Akkar show clear dominance of less experienced supervisors, while Nabatieh again shows a balanced distribution across categories.

The UNRWA supervisor data indicates a diversity of experience, with clear representation from both medium and long experience groups compared to other sectors, with a focus on recent experience in the South, where 100% of supervisors fall within the 0-5 years range, indicating complete reliance on less experienced supervisors. There is an equal representation between those with 11-15 years and 16-20 years of experience in Mount Lebanon (suburbs), indicating medium and advanced experience without representation of recent or long experience groups. The longest experience groups (21 years and above) are absent in this sector.

From the supervisor data, it can be concluded that the public sector has a higher percentage of less experienced staff compared to the private non-free sector, which shows a more varied distribution. Beirut has strong representation from supervisors with longer experience, while the North and Nabatieh governorates focus on less experienced staff.

The private non-free sector records a higher percentage of those with longer experience. Supervisors with recent experience make up the majority in all three sectors (public, free private, and non-free private), with the public sector showing the highest percentage in the 0-10 years category and a noticeable lack of long experience groups. Both private sectors (free and non-free) feature a higher number of supervisors with advanced experience (more than 20 years) compared to the public sector, especially in the North and Nabatieh governorates, where there is a significant lack of supervisors with long experience.

The free private education sector, particularly in Beirut, maintains a stable and experienced workforce. In contrast, the non-free private sector benefits from expanding the use of this experienced workforce in governorates such as the South, Bekaa, and Beirut, which also maintain experienced staff.

▪ General Summary of Demographic Data findings

7.1. Age Variable

Nearly half of the principals in the public sector (48.3%) belong to the age group of 40–50, followed by the 50–60 age group, with a complete absence of younger age groups. Supervisors in the public sector exhibit similar age group distributions as principals. Conversely, the private (free and non-free) sectors show higher representation in the 50–60 age group and include both younger age groups and those over 60.

Overall, this distribution indicates a higher tendency toward older principals in all sectors, with a noticeable lack of younger principals in the public sector. Regarding coordinators, the 30–40 age group is more prevalent compared to principals and supervisors (35.3%). This age group is also the most common among teachers (43.6%).

7.2. Gender Variable

The results highlight a pivotal role for women in the education sector, with a clear dominance in most educational sectors, especially in school leadership and teaching roles within the public sector. The private sector demonstrates a relative gender balance among school principals, while UNRWA-affiliated schools show an absolute dominance of women. The overall distribution reflects a culture of encouraging women in public education, with some balance observed in specific private sectors.

7.3. Employment Status

Approximately 40% of public school principals are in acting roles, meaning they have not undergone formal preparation programs in educational and school administration. Additionally, over two-thirds of public-sector teachers are contracted employees (70.5%) under various designations. This is significant and calls for immediate solutions, especially since many of these teachers have not undergone organized training in education.

7.4. Educational Qualifications

Analysis of the distribution of academic qualifications among principals, supervisors, coordinators, and teachers across different sectors indicates that most public school principals and supervisors hold at least a bachelor's degree, which overwhelmingly dominates this sector. In contrast, the non-free private sector shows a higher representation of those with advanced degrees (Master's), while the public sector remains dominated by bachelor's degree holders. In the free private sector, sub-bachelor qualifications, such as the baccalaureate, are more prevalent, reflecting a relative deficiency in higher-level competencies.

Overall, noticeable disparities in the distribution of academic qualifications exist across different regions. Public education exhibits a relative balance in academic credentials with a slight inclination toward enhancing higher-level qualifications, whereas free private education demonstrates a marked weakness in representing advanced degree holders.

7.5. Years of Experience in Education

The public sector heavily relies on personnel with extensive experience, with the largest proportion of principals having over 25 years of experience. Similarly, the free private sector features a significant representation of principals with long experience (over 25 years), yet there is also noticeable representation of those with shorter experience (0–5 years). The non-free private sector exhibits a more balanced distribution across different experience categories.

An analysis of principals, supervisors, and coordinators across various regions reveals that longer experience dominates many areas, particularly in the public sector, while shorter and medium experience levels provide a better balance in some private sector regions. The results also show significant variations in experience distribution across sectors and governorates.

7.6. Years of Experience in Administration/Supervisors' Roles

In the public sector, recent administrative experience (0–10 years) predominates, accounting for a large percentage (73.5%), with limited representation of longer experience. When compared to principals who have not received formal training in school management, a considerable portion of those with limited experience in administration are also untrained.

In the free private sector, the majority of principals have over 25 years of experience (43.3%). The non-free private sector shows a relative balance, with emphasis on both shorter and longer experience levels (24.5%). UNRWA-affiliated schools primarily focus on principals with 21–25 years of experience (50%).

For supervisors, the public sector leans heavily on newer personnel, while the free and non-free private sectors display a wider range of experience. Beirut stands out for its representation of longer-experienced personnel.

Second: Human Resources in Schools

To determine the size and distribution of human resources in the sample schools and highlight the gaps and needs related to the number of staff, the researchers directed a set of questions to school principals through a questionnaire. These questions covered all job categories in the school, including administrative, educational, and support staff. The results of the principals' responses revealed the reality of human resources in schools, which will be detailed in the following sections. It is noteworthy that there is one principal in each school across different sectors.

1. Total Number of Staff in the School (All Job Categories/Anyone Working at the School)

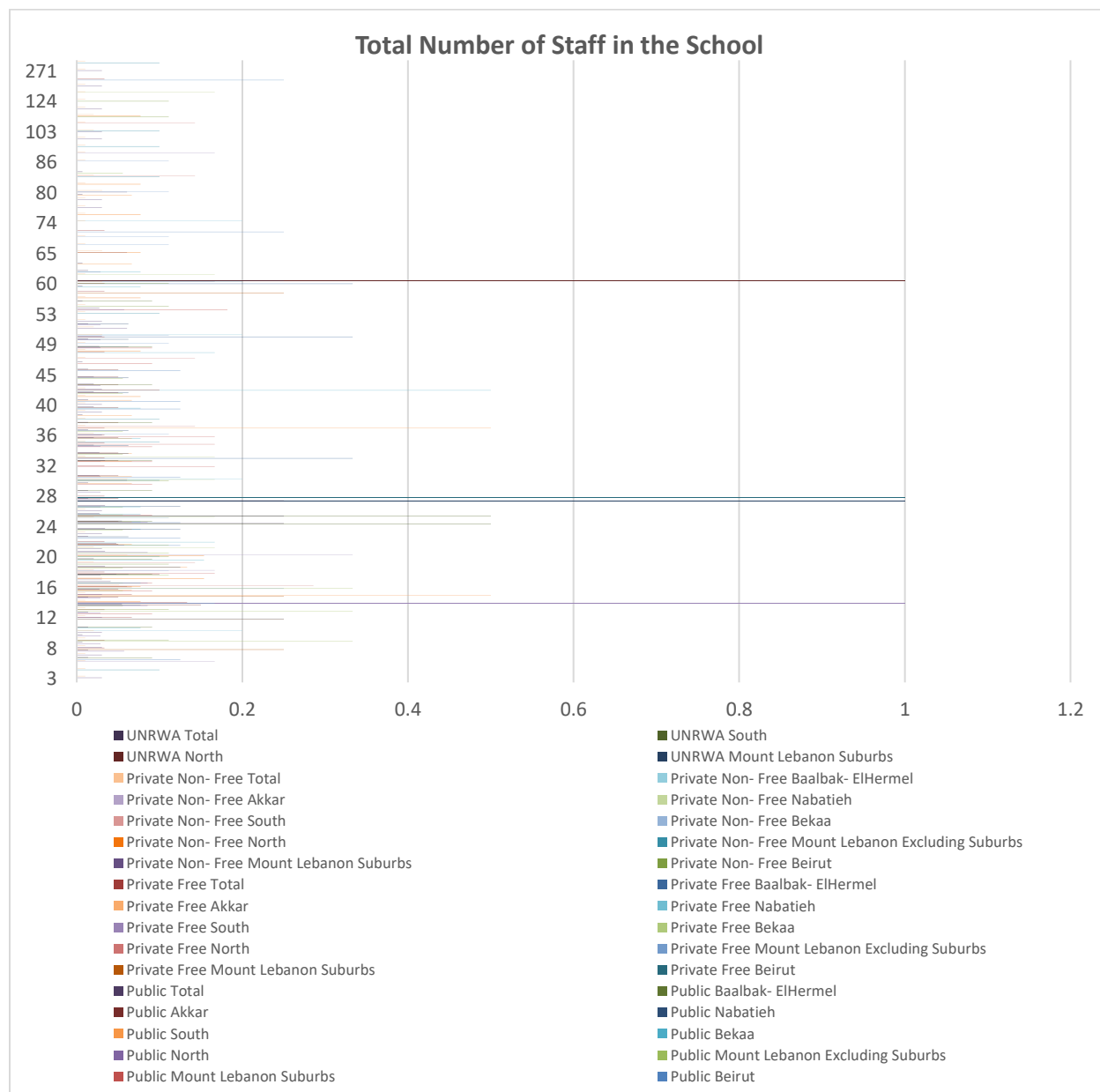


Chart (23): Total Number of Staff in the School

The total number of staff in the schools shows a noticeable variation across different educational sectors in various Lebanese governorates. In Beirut, the distribution of staff in the public, private, and non-fee-paying sectors varies, with the largest number in the public sector, representing 44.4% of schools. In Mount Lebanon, the free private sector dominates at 67.3%, while the public sector represents only 22.4%. In the North, the public sector comprises 63.6% of schools, while in the South, it represents 60.0%. In the Bekaa, the public sector makes up 52.0%, while the free private sector stands out as a major force. In Akkar, the public sector holds the leading position. Overall, the public sector represents the majority in most governorates, with a limited presence of the free private sector, while the non-fee-paying private sector plays a prominent role in high-population areas.

2. Number of teaching staff in the school

2.1. Number of Assigned General Supervisors

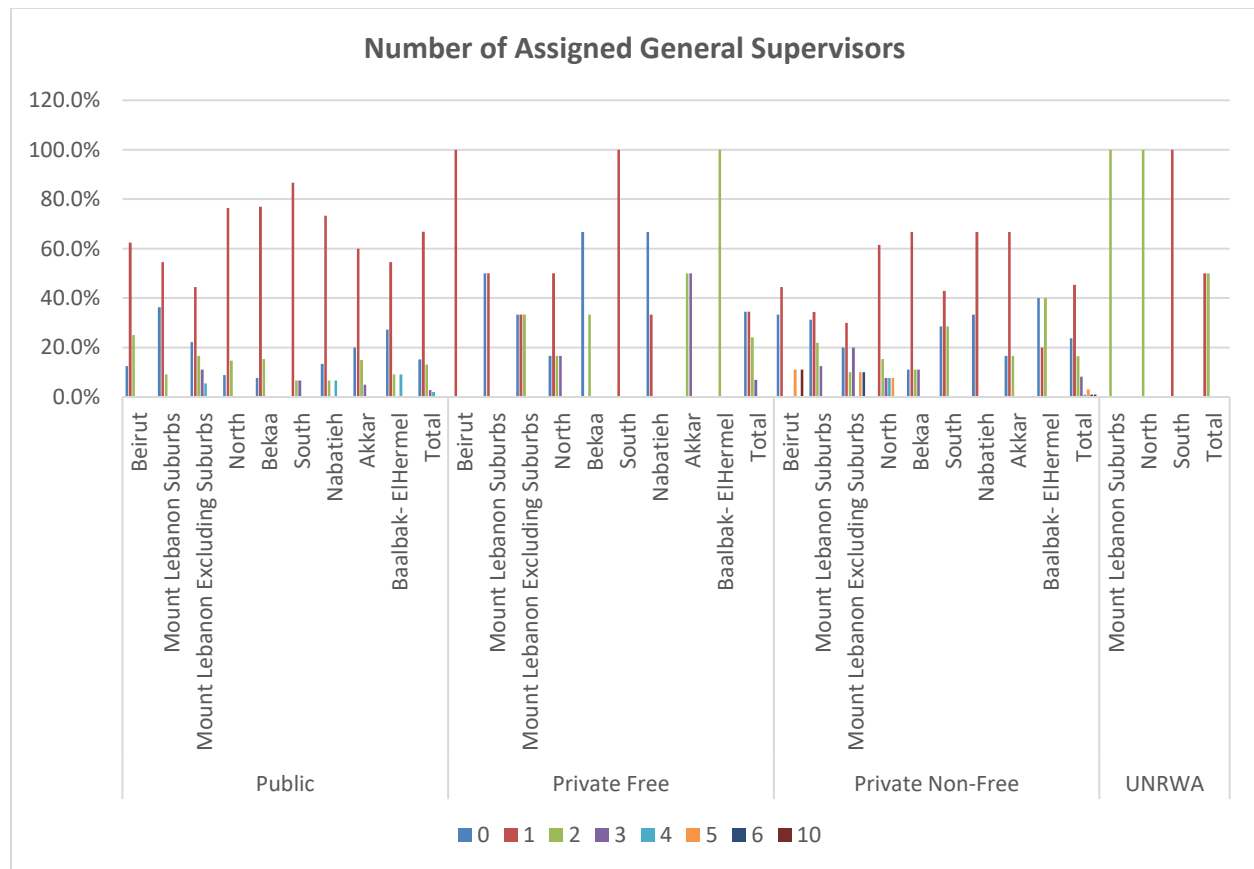


Chart (24): Number of Assigned General Supervisors

In Beirut Governorate, the public education sector is characterized by a significant number of schools relying on a single assigned general supervisor, representing (62.5%) of schools. There is also a smaller proportion relying on multiple assigned general supervisors, while schools without assigned general supervisors form a very small percentage. In the private free education sector,

there is only one school with a single assigned general supervisor, while the non-free private sector shows considerable variation in the distribution of assigned general supervisors.

In Mount Lebanon (suburbs), the public education sector mainly relies on a single assigned general supervisor (54.5%), with a very small percentage relying on multiple assigned general supervisors. The private free sector has half of its schools without any assigned general supervisors, and the other half with a single assigned general supervisor. The non-free private sector is divided between a single assigned supervisor, no supervisors, and three assigned general supervisors.

In Mount Lebanon (excluding suburbs), the public sector shows diversity in the distribution of assigned general supervisors, with a large proportion relying on a single assigned general supervisor and a very small proportion relying on more than three assigned general supervisors. The private free sector has limited distribution of assigned general supervisors, while the non-free private sector has a balanced distribution between schools without assigned general supervisors and those with four or more general supervisors.

the North, the public education sector primarily relies on a single assigned general supervisor (76.5%), with a very small percentage relying on assigned general supervisors. The private free sector is limited, while the non-free private sector predominantly relies on a single assigned general supervisor.

In Bekaa, the public sector relies on a single assigned general supervisor (76.9%), with a very small percentage of schools having no assigned general supervisors. The private free sector has most of its schools without assigned general supervisors, while the non-free private sector shows a large reliance on a single general supervisor.

In the South, the public education sector mainly relies on a single assigned general supervisor (86.7%), with a very small percentage relying on two or three assigned general supervisors. The private free sector has very limited distribution of assigned general supervisors, while the non-free private sector is divided between schools without general supervisors and those with a single assigned general supervisor.

Overall, it is evident that most schools in all governorates rely on a single assigned general supervisor, with varying distributions of assigned supervisors across sectors.

2.2.Number of Supervisors (Who Do Not Teach)

In the public education sector in Beirut Governorate, there is variation in the number of supervisors who do not teach. About 25% of schools do not have any supervisors who are not also teaching, reflecting a need for improvement in the distribution of supervisors to ensure better administrative efficiency. Schools with a single supervisor represent (12.5%), indicating the need for more personnel to ensure fairer distribution of responsibilities. Schools with two supervisors form (50%) of the sector, showing a noticeable need for broader distribution of supervisors. Schools with four supervisors represent (12.5%), highlighting the necessity of efficiently allocating their roles based on school needs.

The private free sector in Beirut includes only one school with a single supervisor, reflecting the sector's limitation in this regard.

The non-free private sector in Beirut shows diversity, with schools without a supervisor, schools with one supervisor, and schools with three supervisors, indicating a variation in the distribution of supervisors based on school needs.

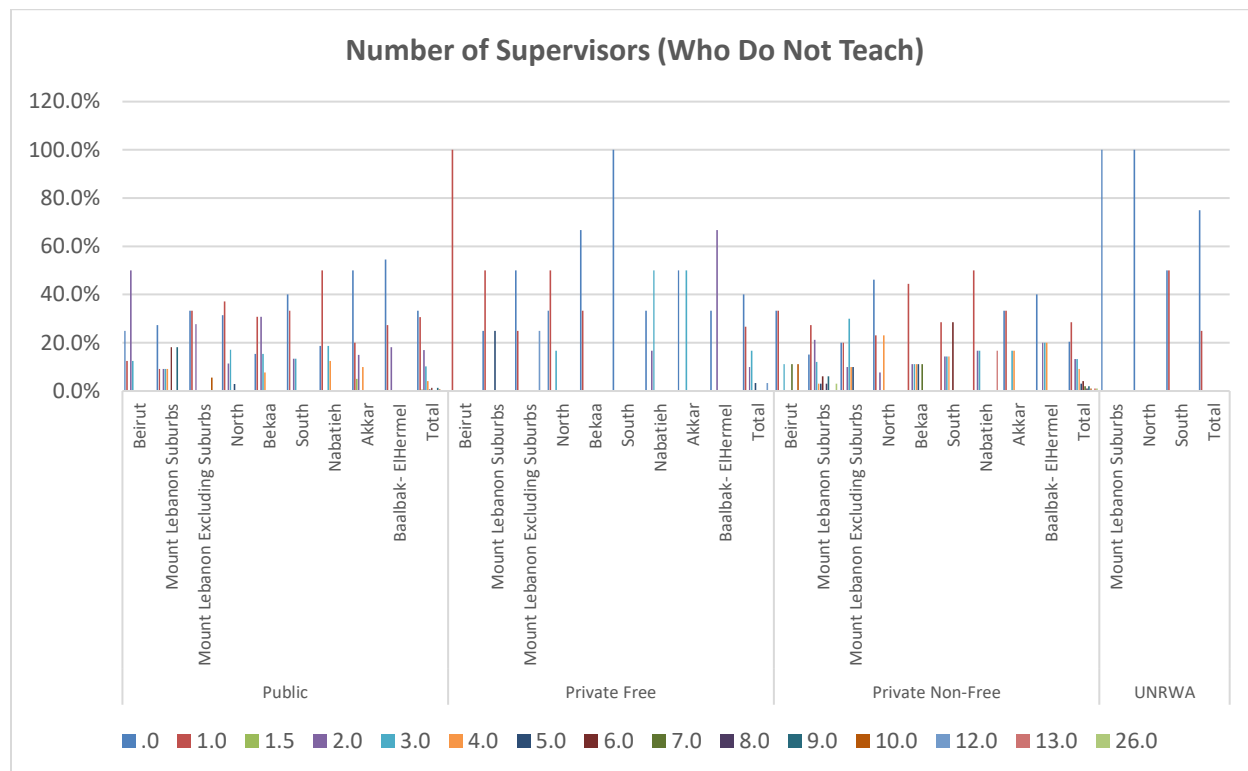


Chart (25): Number of Supervisors (Who Do Not Teach)

In Mount Lebanon, the public sector has the highest number of supervisors who do not teach, representing (22.4%) of the total supervisors in the governorate. Schools without a supervisor represent (27.3%) of the sector. The private free sector is limited in the distribution of supervisors, while the non-free private sector constitutes more than (67.3%) of the total number of supervisors, indicating significant variation in the distribution across schools.

In the North, Bekaa, and the South, the public sector shows large proportions of supervisors who do not teach.

2.3. Number of Coordinators Who Do Not Teach (Only Coordination Tasks)

The number of coordinators shows significant variation across different regions and educational sectors. In Beirut, In the sample, public sector schools have 8 coordinators, representing (44.4%) of the total number, all of whom do not teach. In the sample, only one free private school reported having a coordinator who does not teach while the non-free private sector has 9 coordinators, forming (50%) of the total coordinators. The total number of coordinators in Beirut is 18, with the

public sector representing (50%), the private free sector (16.7%), and the non-free private sector (22.2%).

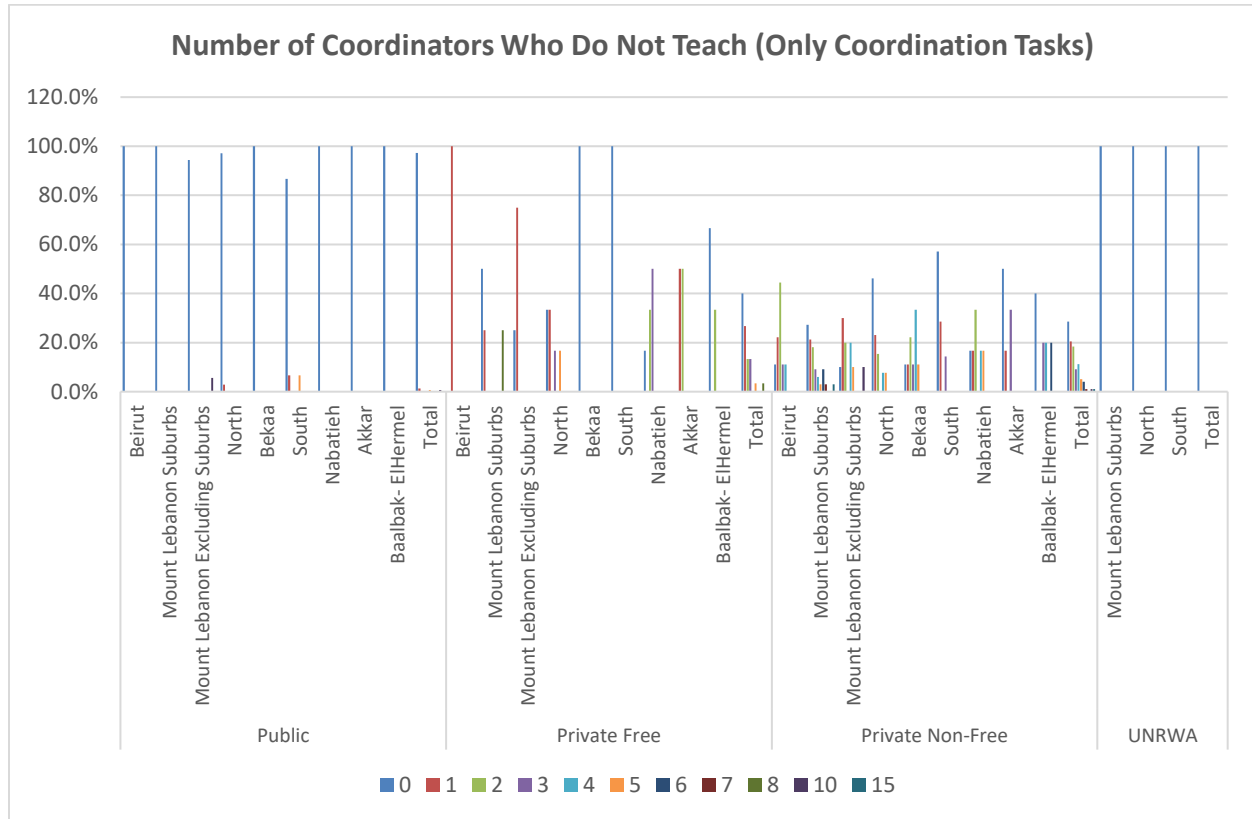


Chart (26): Number of Coordinators Who Do Not Teach (Only Coordination Tasks)

In Mount Lebanon (suburbs), the public sector has the largest number of coordinators who do not teach, representing (22.4%) of the total. The private free sector has 4 coordinators, representing (8.2%), while the non-free private sector has 33 coordinators, forming (67.3%) of the total. The total number of coordinators in Mount Lebanon (suburbs) is 49, with (46.9%) in the public sector and (16.3%) in the private free sector.

In Mount Lebanon (excluding suburbs), the public sector clearly dominates, representing (53.1%) of the total coordinators. The private free sector has 4 coordinators, representing (12.5%), while the non-free private sector has 10 coordinators, forming (31.3%) of the total. In the North, the public sector constitutes (61.8%) of the total coordinators, while the private free sector has 6 coordinators, representing (10.9%). The non-free private sector includes 13 coordinators, making up (23.6%).

In Bekaa, the public sector represents (68%) of the total number of coordinators who do not teach, while in the South, the public sector forms (80%) of the total number. In Nabatieh, the public sector represents (64.3%), and in Akkar, it forms (82.1%).

2.4. Number of Laboratory Technicians (Who Do Not Teach in The School)

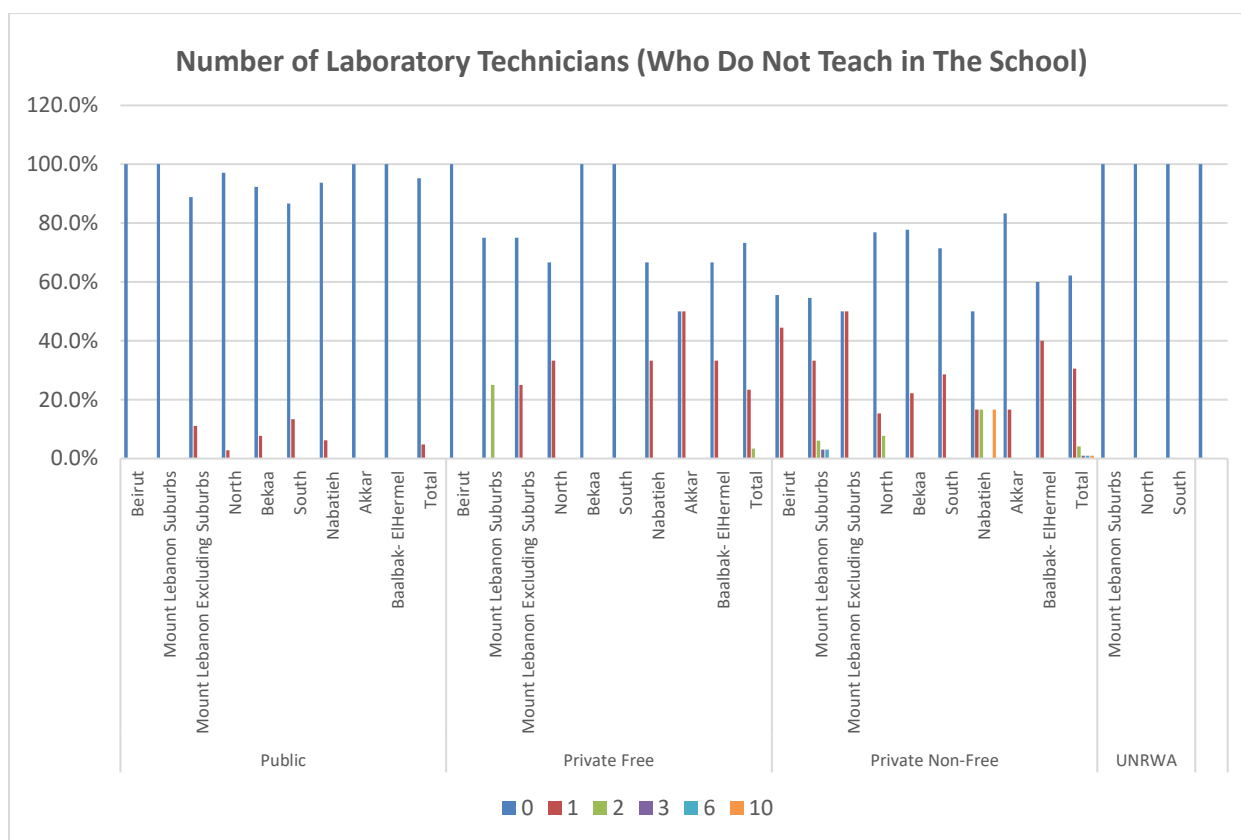


Chart (27): Number of Laboratory Technicians (Who Do Not Teach in The School)

The data from Beirut indicates that 95.2% of public schools do not have laboratory supervisors who provide instruction, while 4.8% of schools do have one. In the free private sector, none of the schools have laboratory supervisors providing instruction. Conversely, in the non-free private sector, 55.6% of schools lack laboratory supervisors, while 44.4% have one laboratory supervisor.

In Mount Lebanon (suburbs), 100% of public schools lack laboratory supervisors. In the rest of Mount Lebanon, 88.9% of public schools face a shortage, while 11.1% of schools have one laboratory supervisor.

In the North, 97.1% of public schools do not have laboratory supervisors, while 2.9% have one supervisor. In the Bekaa, 92.3% of public schools suffer from this shortage, with 7.7% of schools employing one laboratory supervisor.

In the South, 86.7% of public schools lack laboratory supervisors, while 13.3% have one. In Nabatieh, 93.8% of public schools are without laboratory supervisors, while 6.3% employ one supervisor. Akkar and Baalbek-Hermel record a complete absence of laboratory supervisors in public schools, with 100% lacking this role.

Across educational sectors, the public sector shows a significant shortage, with 95.2% of schools lacking laboratory supervisors. In the free private sector, 73.3% of schools are without laboratory supervisors, while in the non-free private sector, 62.2% of schools face a shortage. Similarly, UNRWA schools report a total absence of laboratory supervisors, with 100% of their schools lacking this position.

2.5. Number of Librarians (Who Do Not Teach in The School)

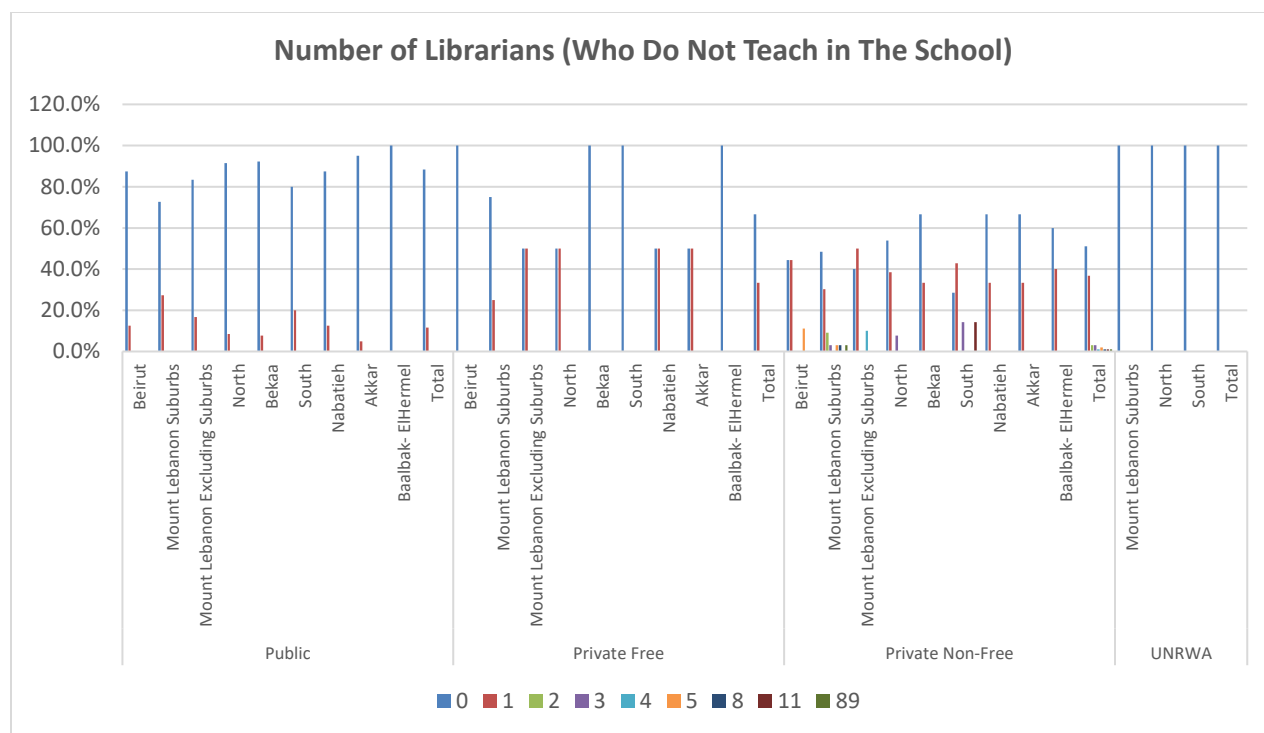


Chart (28): Number of Librarians (Who Do Not Teach in The School)

In Beirut, the public sector dominates with 87.5% of schools lacking librarians, while the private non-free sector shows more variation in librarian distribution. The private free sector has no librarians. Overall, 66.7% of schools in Beirut lack librarians.

In Mount Lebanon (suburbs), the public and private free sectors make up the majority of schools without librarians. The private non-free sector exhibits a broader distribution, with 30.3% of schools having one librarian and 12.1% having more than one. Overall, 57.1% of schools in the governorate lack librarians.

In other parts of Mount Lebanon, the public sector accounts for 83.3% of schools without librarians, while the private sector shows a moderate distribution among schools with zero or one librarian. Overall, 65.6% of schools in this area lack librarians.

In the North, the public sector accounts for the majority of schools without librarians at 91.4%, while the private sectors exhibit relatively diverse distribution. Overall, 78.2% of schools in the North lack librarians.

In the Bekaa region, the public sector dominates with 92.3% of schools lacking librarians, while the private sector shows a balanced distribution among schools with zero or one librarian. Overall, 84% of schools in the Bekaa region lack librarians.

In the South, the public sector represents a large portion of schools without librarians (80%), while the private non-free sector shows greater representation of schools with librarians. Overall, 68% of schools in the South lack librarians.

In Nabatieh, the public sector exhibits clear dominance in schools without librarians, with 87.5% lacking them. The private sector shows a moderate distribution between schools with and without librarians. Overall, 75% of schools in Nabatieh lack librarians.

In Akkar, the public sector shows the highest proportion of schools without librarians (95%). The private sector exhibits relative balance but with limited representation. Overall, 85.7% of schools in Akkar lack librarians.

Analysis indicates that public sector in all governorates account for the largest share of schools without librarians, with relatively greater diversity in librarian distribution within the private non-free sector.

3. Number of Administrative Staff (Not Included in Question 8 and Its Subsections)

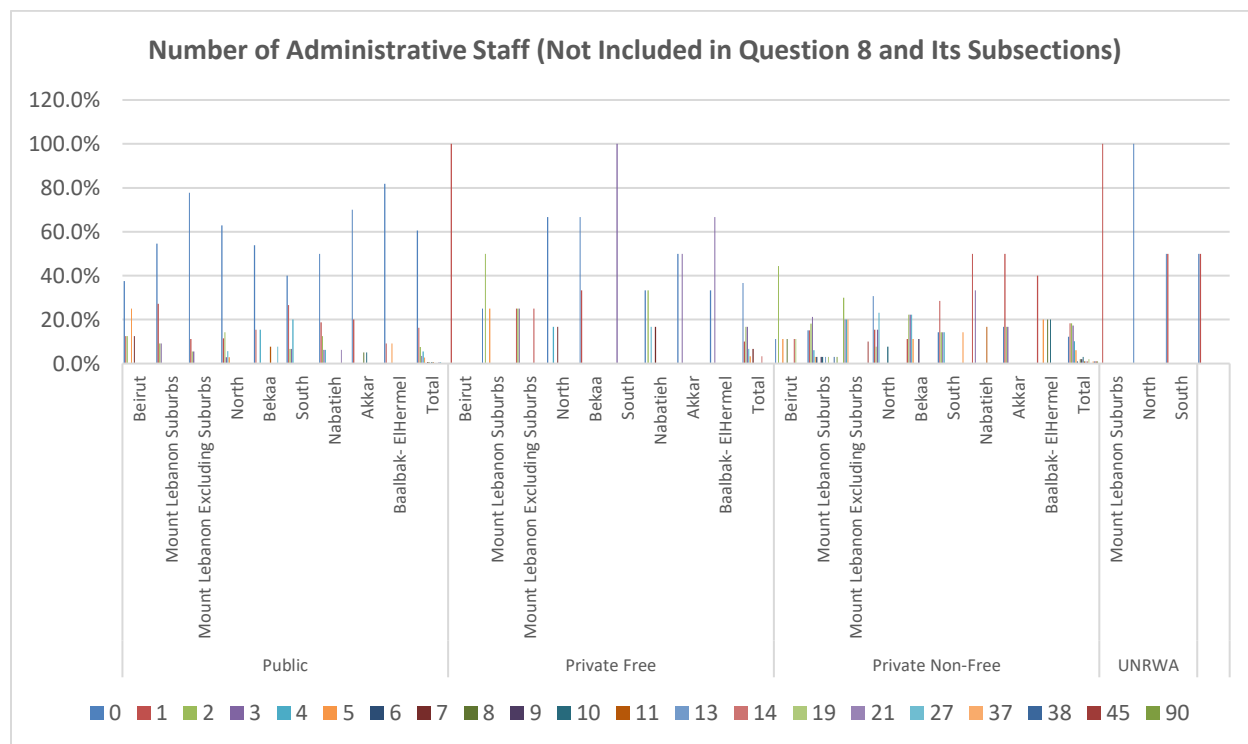


Chart (29): Number of Administrative Staff

In Beirut, the public sector has the highest percentage of schools without administrative staff at 37.5%. Meanwhile, the private non-free sector displays greater diversity, with 44.4% of schools employing administrative staff.

In Mount Lebanon (suburbs), 54.5% of public schools lack administrative staff, indicating a significant shortage, while the private free sector shows a balanced distribution. The private non-free sector is notable for a broader range, with 21.2% of schools employing three administrative staff members.

In other parts of Mount Lebanon, 77.8% of public schools lack administrative staff. The private free-tuition sector demonstrates a balanced distribution, while the private non-free sector highlights diversity, with 30% of schools employing two administrative staff members.

In the North, 62.9% of public schools lack administrative staff, reflecting a severe shortage. The private free-tuition sector has limited representation, while the private non-free sector demonstrates diverse staff distribution, with a significant proportion of schools employing four administrative staff members.

In the Bekaa region, a significant proportion of public schools (53.8%) lack administrative staff. The private free sector shows limited distribution, while the private non-free sector displays significant variation among schools.

In the South, 40% of public schools lack administrative staff, with better diversity in staff numbers compared to other governorates. The private non-free sector reflects uneven distribution, while the private free sector is limited to a single school.

In Nabatieh, 50% of public schools lack administrative staff. The private free sector shows relative balance, while the private non-free sector demonstrates significant variation in staff numbers.

In Akkar, the public sector shows the highest shortage, with 70% of schools lacking administrative staff. Both the private free-tuition and private non-free sectors exhibit wide variation in staff distribution.

In Baalbek-Hermel, the public sector faces severe shortages, with 81.8% of schools lacking administrative staff. The private free sector is extremely limited, while the private non-free sector shows a wide range of staff numbers.

3.1.Number of IT Workers (Who Do Not Teach in The School)

In Beirut, in the sample, each of the eight public sector schools employs one IT worker. In private free schools, there is one school with four IT workers. In the private non-free sector, schools are distributed based on varying numbers of IT workers.

In Mount Lebanon (suburbs), the public sector includes 11 schools with one IT worker each. In the private free sector, only a few schools employ IT workers in varying numbers. The private non-free sector exhibits the greatest variety, with schools employing up to four IT workers.

In Mount Lebanon (excluding suburbs), public education includes very few schools without IT workers, with the majority having one IT worker. The private free-tuition sector shows greater

diversity, with schools employing IT workers in different numbers. Meanwhile, the private non-free sector has a significant proportion of schools with larger numbers of IT workers.

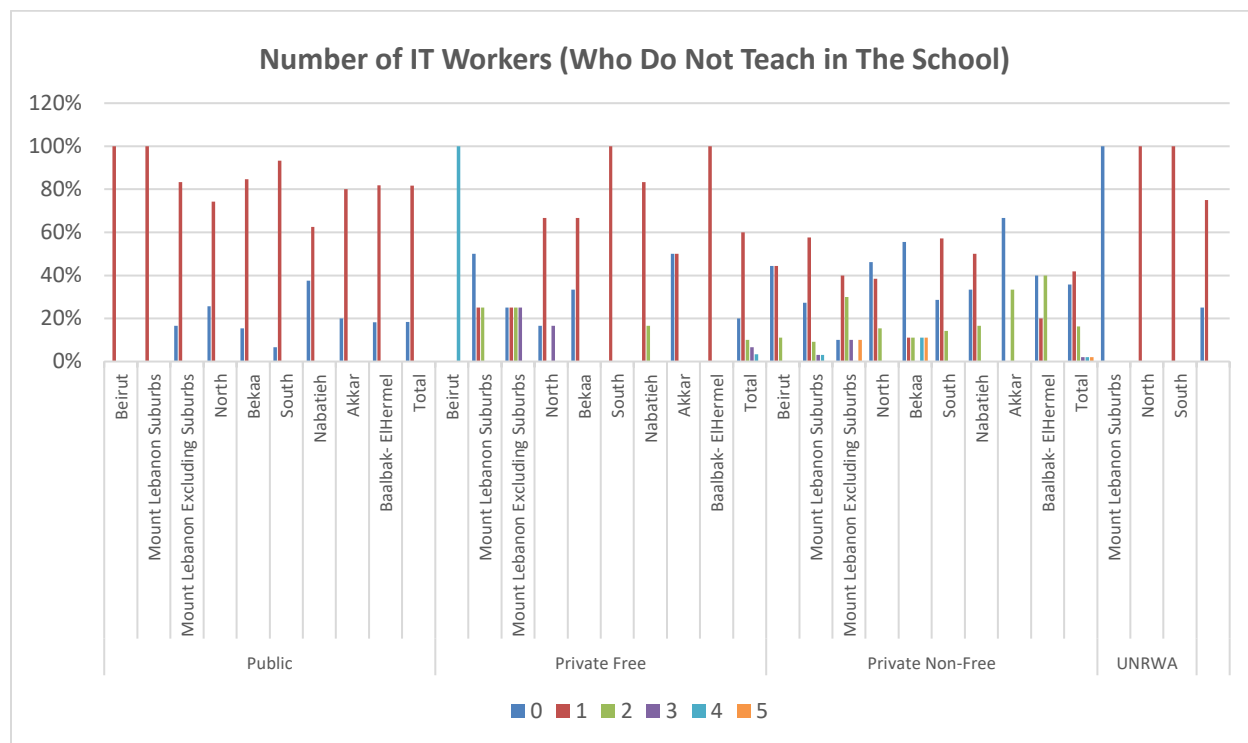


Chart (30): Number of IT Workers (Who Do Not Teach in The School)

In the North and Bekaa, public education represents a high percentage of schools without IT workers. The private free-tuition sector has limited IT staff in a few schools, while the private non-free sector displays greater diversity in the distribution of IT workers.

In the South, the public sector dominates with a significant proportion of schools having only one IT worker. In Nabatieh and Akkar, the public sector includes most schools without IT workers, with only a few other schools employing IT staff.

Overall, public education maintains the highest percentage of schools with only one IT worker. In contrast, the private free-tuition and private non-free sectors exhibit greater diversity, with some schools employing varying numbers of IT workers.

3.2. Number of Other Administrative Staff (Who Do Not Teach in The School)

In Beirut, there are five public schools, with 62.5% lacking additional administrative staff. Some other schools employ 2, 5, or 6 administrative staff members. In the private free sector, one school has no administrative staff. In the private non-free sector, three schools lack administrative staff, while others employ 1, 3, or 7 staff members.

In Mount Lebanon (suburbs), 72.7% of public schools have no additional administrative staff, while some employ 1 or 2 staff members. In the private free sector, half of the schools lack

administrative staff, while others employ 2 or 6 staff members. In the private non-free sector, 36.4% of schools lack administrative staff, with the rest employing 1 or 2 staff members. All UNRWA schools employ 1 administrative staff member.

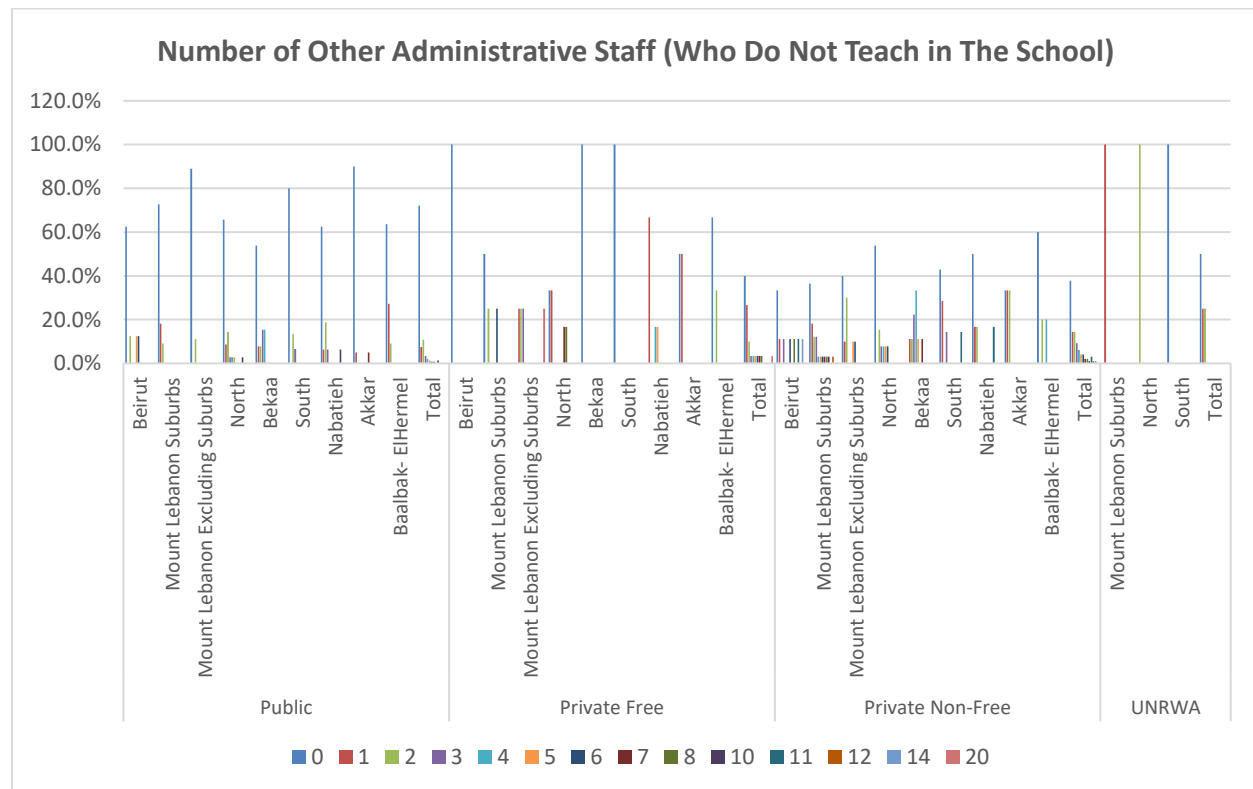


Chart (31): Number of Other Administrative Staff (Who Do Not Teach in The School)

In Mount Lebanon (excluding suburbs), 88.9% of public schools lack administrative staff, while some employ 2 staff members. In the private free sector, schools employ 1, 2, or 3 staff members. In the private non-free sector, 40% of schools lack administrative staff, while others employ 1, 2, or 4 staff members.

In the North, 65.7% of public schools lack administrative staff, while some employ 1 or 2 staff members. In the private free sector, 33.3% of schools lack administrative staff, while others employ 1 or 6 staff members. In the private non-free sector, over half of the schools lack administrative staff, while others employ 2 staff members. All UNRWA schools employ 2 administrative staff members.

In Bekaa, more than half of public schools lack administrative staff, while some employ 1 or 2 staff members. In the private free-tuition sector, all schools lack administrative staff. In the private non-free sector, some schools lack administrative staff, while others employ 1, 2, or 3 staff members.

In the South, 80% of public schools lack administrative staff, while some employ 1 or 2 staff members. In the private free sector, all schools lack administrative staff. In the private non-free

sector, some schools lack administrative staff, while others employ 1, 3, or 5 staff members. UNRWA schools do not employ additional administrative staff.

In Nabatieh, 62.5% of public schools lack administrative staff, while some employ 1, 3, or 5 staff members. In the private free sector, some schools employ 1 staff member, while others employ 5 or 6 staff members. In the private non-free sector, some schools lack administrative staff, while others employ 1, 3, or 10 staff members.

In Akkar, 90% of public schools lack administrative staff, while one school employs 3 staff members. In the private free sector, all schools employ 1 staff member. In the private non-free sector, 85.7% of schools lack administrative staff, while others employ 1 staff member.

In Baalbek-Hermel, 63.6% of public schools lack administrative staff, while others employ 2 or 5 staff members. Half of the private free schools employ 1 staff member, while others employ 2 staff members. In the private non-free sector, 75% of schools lack administrative staff, while one school employs 1 staff member.

Overall, the public sector suffers from a significant shortage of administrative staff across most governorates, while the private non-free sector exhibits greater diversity in the distribution of administrative staff.

4. Number of technical staff not involved in teaching at the school

4.1. Number of Psychologists

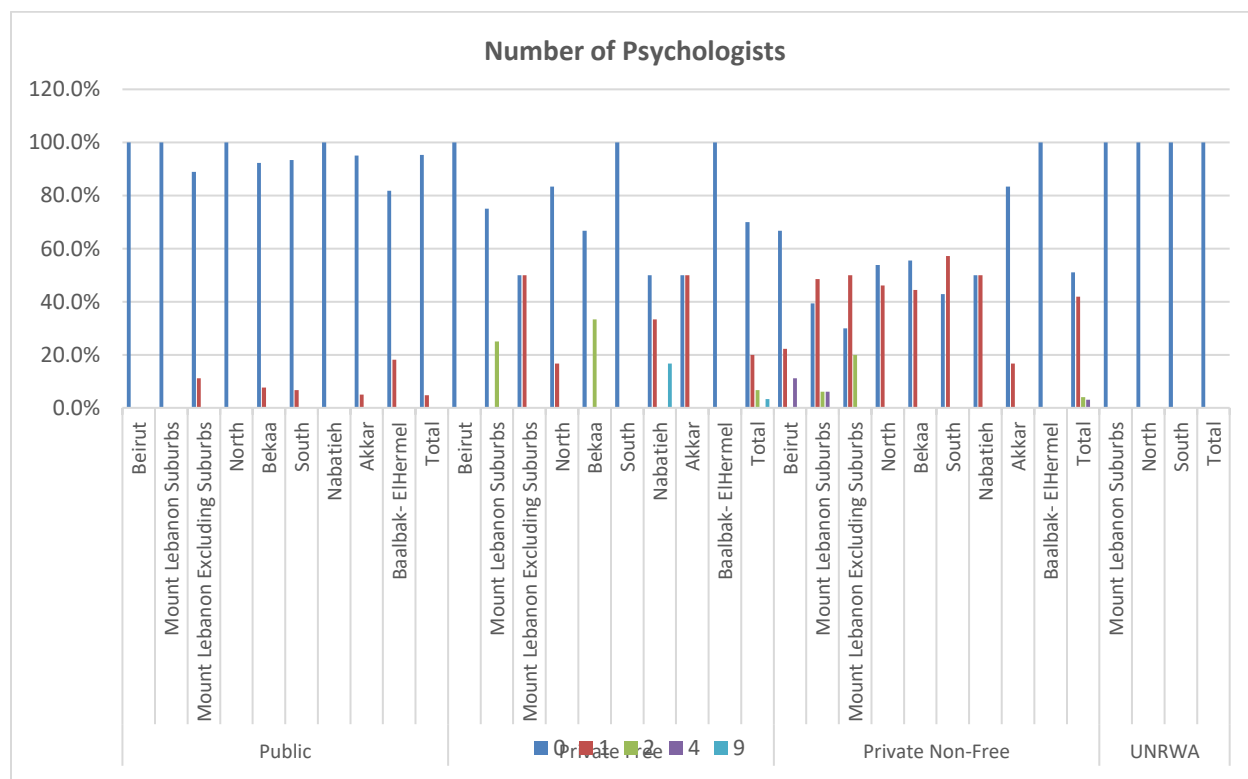


Chart (32): Number of Psychologists

The results indicate that none of the eight public schools in Beirut have a psychologist, representing nearly half of the total schools in the governorate. Similarly, the single free private school lacks psychologists. Among the nine non-free private schools, six have no psychologists, two have one psychologist each, and one school has four psychologists. Overall, out of 18 schools in Beirut, 15 lack psychologists, two have one psychologist each, and one school has four psychologists.

In Mount Lebanon (suburbs), the 11 public schools lack psychologists. Of the four free private schools, three lack psychologists, and one has a single psychologist. Among 33 non-free private schools, 13 lack psychologists, 16 have one psychologist each, and two have two psychologists. Out of 49 schools in this region, 28 lack psychologists, 16 have one psychologist each, and three have two psychologists.

In Mount Lebanon (excluding suburbs), among 18 public schools, 16 lack psychologists, and two have one psychologist each. Of the four free private schools, two lack psychologists, and two have one psychologist each. Among 10 non-free private schools, three lack psychologists, five have one psychologist each, and two have two psychologists. Out of 32 schools, 21 lack psychologists, nine have one psychologist each, and two have two psychologists.

In the North, all 35 public schools lack psychologists. Of the six free private schools, five lack psychologists, and one has a psychologist. Among 13 non-free private schools, seven lack psychologists, and six have one psychologist each. In total, 48 out of 55 schools lack psychologists, and seven have one psychologist each.

In Bekaa, among 13 public schools, 12 lack psychologists, and one has a psychologist. Of the three free private schools, two lack psychologists, and one has a psychologist. Among nine non-free private schools, five lack psychologists, and four have one psychologist each. Out of 25 schools, 19 lack psychologists, five have one psychologist each, and one has two psychologists.

In the South, among 15 public schools, 14 lack psychologists, and one has a psychologist. The single free private school lacks psychologists. Among seven non-free private schools, four lack psychologists, and three have one psychologist each. Out of 25 schools, 21 lack psychologists, and four have one psychologist each.

In Nabatieh, all 16 public schools lack psychologists. Among six free private schools, three lack psychologists, and three have one psychologist each. Of the six non-free private schools, three lack psychologists, and three have one psychologist each. Out of 28 schools, 22 lack psychologists, and six have one psychologist each.

In Akkar, of 20 public schools, 19 lack psychologists, and one has a psychologist. Among two free private schools, one lacks a psychologist, and one has a psychologist. Of six non-free private schools, five lack psychologists, and one has a psychologist. Out of 28 schools, 25 lack psychologists, and three have one psychologist each.

In Baalbek-Hermel, of 11 public schools, nine lack psychologists, and two have one psychologist each. All three free private schools lack psychologists. Among five non-free private schools, none have psychologists. Out of 19 schools, 17 lack psychologists, and two have one psychologist each.

In total, the public sector encompasses 147 schools, most of which lack psychologists. The free private sector includes 30 schools, most of which also lack psychologists. Among 98 non-free private schools, around half lack psychologists. All four UNRWA schools lack psychologists. Out of 279 schools nationwide, most face a significant shortage of psychologists.

4.2. Number of Social Workers

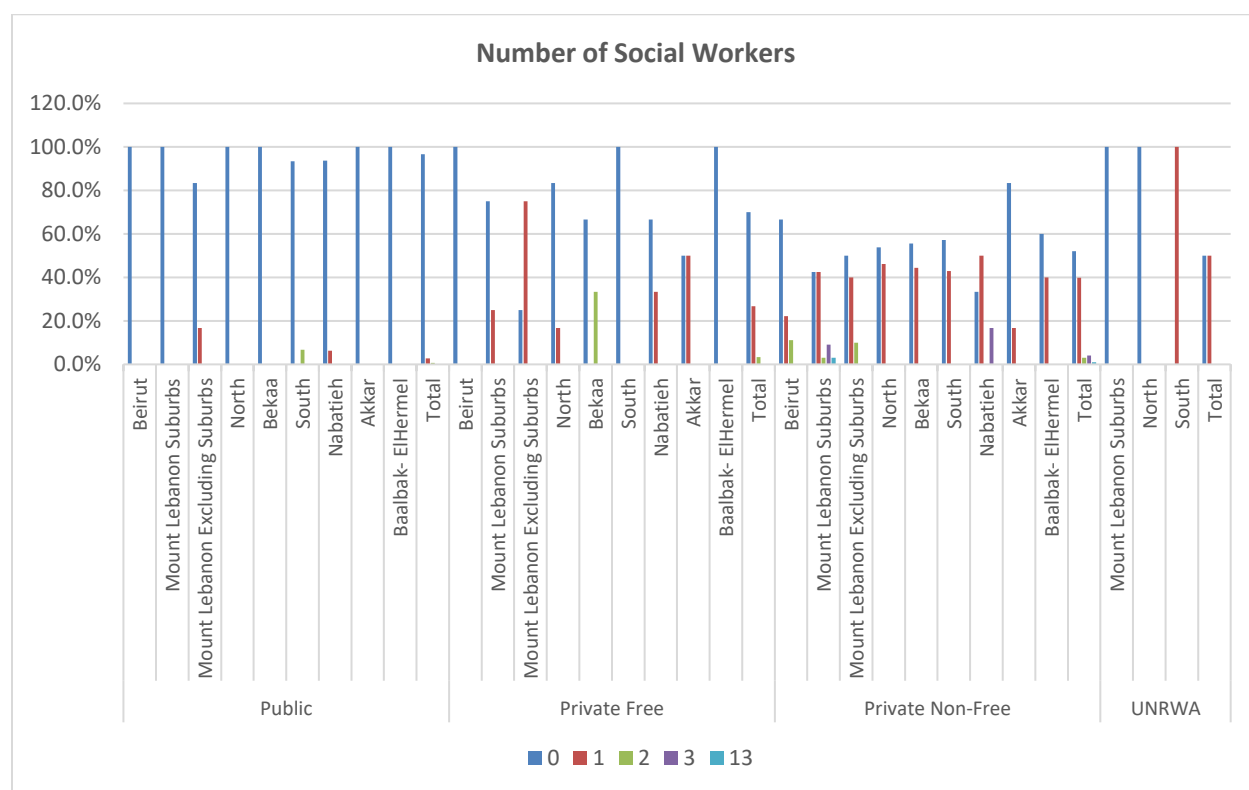


Chart (33): Number of Social Workers

In Mount Lebanon, no public schools have social workers. Among four free private schools, one has a social worker. In non-free private schools, half lack social workers, four in ten have one social worker, and one in ten has two. Each UNRWA school in this area has one social worker.

In the North, none of the public schools have social workers. One out of six free private schools has a social worker. Around half of the non-free private schools have social workers, while the other half do not. UNRWA schools in this area lack social workers.

In Bekaa, none of the public schools have social workers. One out of three free private schools has a social worker. Among nine non-free private schools, four have social workers, while the others do not.

In the South, most public schools lack social workers. Free private schools entirely lack social workers. Of the seven non-free private schools, three have social workers. Each UNRWA school in the region has one social worker.

In Nabatieh, most public schools lack social workers. Of six free private schools, two have social workers. Half of the non-free private schools have social workers, and one school has two.

In Akkar, none of the public schools have social workers. Of two free private schools, one has a social worker. Of six non-free private schools, one has a social worker, and the others lack them.

In Baalbek-Hermel, none of the public or free private schools have social workers. Among five non-free private schools, two have social workers.

Overall, there is a significant shortage of social workers in public and free private schools, while non-free private schools show relatively better, though still insufficient, coverage.

4.3. Number of Educational Counselors (In the School)

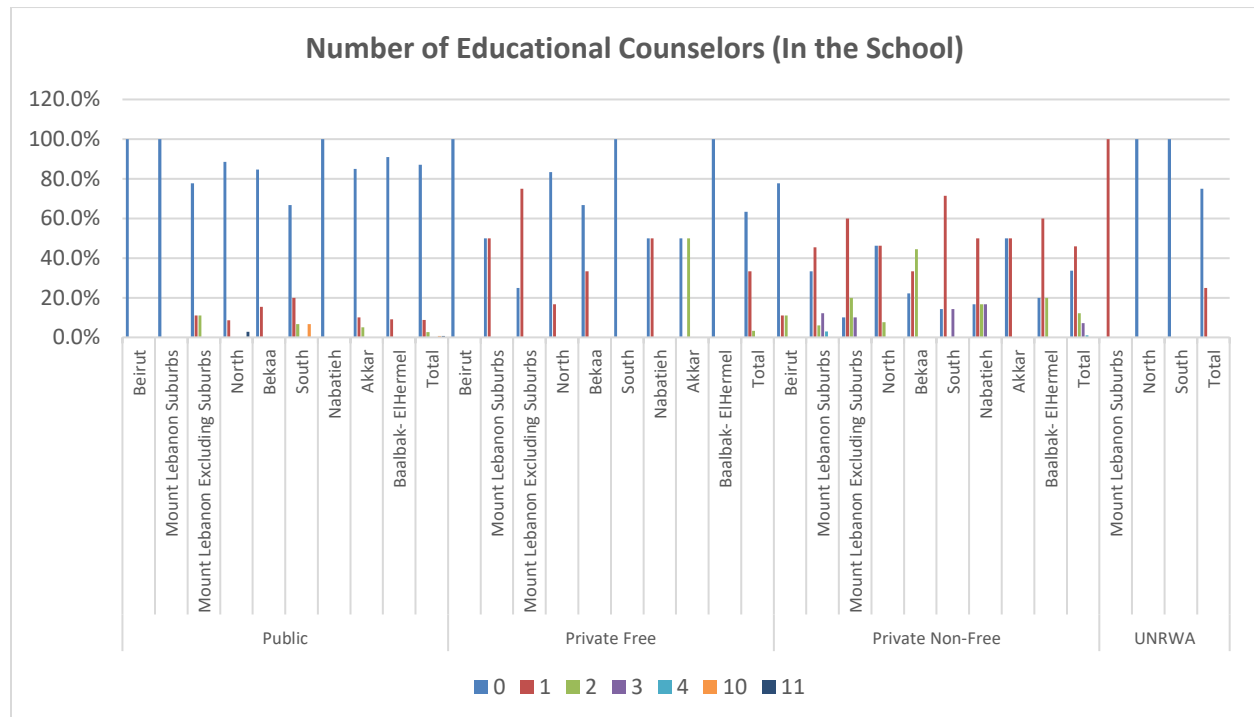


Chart (34): Number of Educational Counselors (In the School)

The number of educational counselors varies significantly across sectors. In Beirut, all eight public schools lack counselors. The single free private school also lacks a counselor. Of nine non-free private schools, seven lack counselors, one has a counselor, and one has two.

In Mount Lebanon (suburbs), all public schools lack counselors, while half of the free private schools have one counselor each. Non-free private schools exhibit a mix, with many lacking counselors and others having one or two counselors.

In Mount Lebanon (excluding suburbs), public schools predominantly lack counselors, while private schools in both sectors have better coverage, though still unevenly distributed.

In the North, most public schools lack counselors, while private schools, particularly non-free ones, show slightly better provision.

In Bekaa, public schools have the highest proportion of schools without counselors, followed by non-free private schools.

In the South, public schools predominantly lack counselors, while non-free private schools show a higher presence.

In Nabatieh and Akkar, public schools lack counselors in most cases, with varying coverage in private schools.

Overall, public schools maintain the highest proportion of schools without educational counselors. Non-free private schools show better distribution, but gaps remain significant.

5. Staff who are involved in teaching at the school

5.1. Number of Supervisors Also Teaching at the School

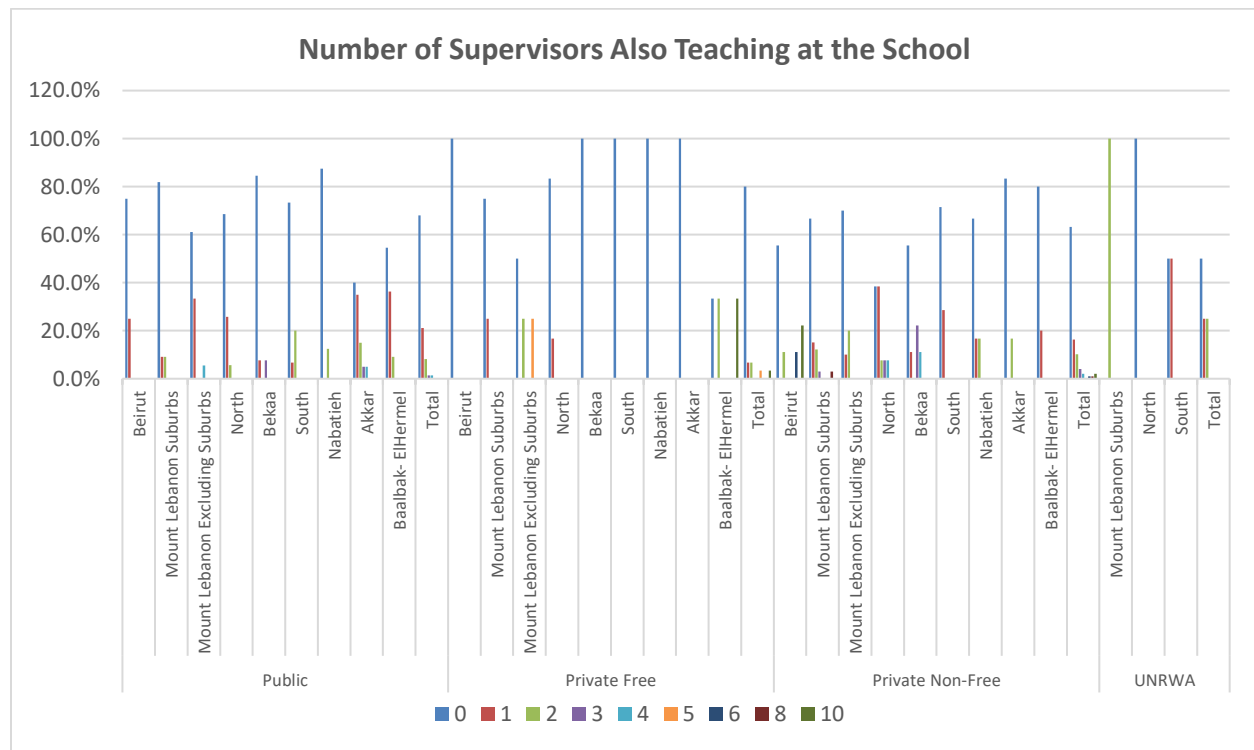


Chart (35): Number of Supervisors Also Teaching at the School

In Beirut, there are 8 public schools, of which 6 do not have a supervisor who teaches, and 2 have one supervisor each. In the free private sector, there is one school with one supervisor. In the non-free private sector, there are 9 schools, 5 of which do not have a supervisor, 1 has 2 supervisors, 1 has 4 supervisors, and 2 have 6 supervisors. In total, there are 18 schools in Beirut, of which 12 have no supervisor, 2 have one supervisor, 1 has two, 1 has four, and 2 have six supervisors.

In Mount Lebanon - Suburbs, there are 11 public schools, of which 9 do not have a supervisor, 1 has one supervisor, and 1 has two. In the free private sector, there are 4 schools, 3 of which have no supervisor, and 1 has one supervisor. In the non-free private sector, there are 33 schools, 22 of which have no supervisor, 5 have one supervisor, 4 have two, 1 has three supervisors, and 1 has

five. In UNRWA schools, there is 1 school with 2 supervisors. In total, there are 49 schools in the district, 34 of which have no supervisor, 7 have one supervisor, 6 have two, 1 has three, and 1 has five.

In Mount Lebanon (excluding suburbs), there are 18 public schools, 11 of which have no supervisor, 6 have one supervisor, and 1 has three. In the free private sector, there are 4 schools, 2 of which have no supervisor, 1 has two, and 1 has five. In the non-free private sector, there are 10 schools, 7 of which have no supervisor, 1 has one supervisor, and 2 have two. In total, there are 32 schools in this district, 20 of which have no supervisor, 7 have one supervisor, and 3 have more than one.

In the North, there are 35 public schools, 24 of which have no supervisor, 9 have one supervisor, and 2 have two. In the free private sector, there are 6 schools, 5 of which have no supervisor, and 1 has one supervisor. In the non-free private sector, there are 13 schools, 5 of which have no supervisor, 5 have one supervisor, 1 has two, 1 has three, and 1 has four. In UNRWA schools, there is 1 school with 1 supervisor. In total, there are 55 schools in the North, 35 of which have no supervisor, 15 have one supervisor, 3 have two, 1 has three, and 1 has four.

In the Bekaa, there are 13 public schools, 11 of which have no supervisor, 1 has one supervisor, and 1 has two. In the free private sector, there are 3 schools, all of which have no supervisor. In the non-free private sector, there are 9 schools, 5 of which have no supervisor, 1 has one supervisor, 2 have two, and 1 has three. In total, there are 25 schools in the Bekaa, 19 of which have no supervisor, 2 have one supervisor, 3 have two, and 1 has three.

In the South, there are 15 public schools, 11 of which have no supervisor, 1 has one supervisor, and 3 have 3 supervisors. In the free private sector, there is 1 school with one supervisor. In the non-free private sector, there are 7 schools, 5 of which have no supervisor, and 2 have one supervisor. In UNRWA schools, there are 2 schools, 1 with one supervisor and 1 with two. In total, there are 25 schools in the South, 18 of which have no supervisor, 4 have one supervisor, and 3 have 3 supervisors.

In Nabatieh, there are 16 public schools, 14 of which have no supervisor, and 2 have two. In the free private sector, there are 6 schools with no supervisor. In the non-free private sector, there are 6 schools, 4 of which have no supervisor, 1 has one supervisor, and 1 has two. In total, there are 28 schools in Nabatieh, 24 of which have no supervisor, 1 has one supervisor, and 3 have two.

In Akkar, there are 20 public schools, 8 of which have no supervisor, 7 have one supervisor, 3 have two, 1 has three, and 1 has four. In the free private sector, there are 2 schools with no supervisor. In the non-free private sector, there are 6 schools, 5 of which have no supervisor, and 1 has two. In total, there are 28 schools in Akkar, 15 of which have no supervisor, 7 have one supervisor, 4 have two, 1 has three, and 1 has four.

In Baalbek-Hermel, there are 11 public schools, 6 of which have no supervisor, 4 have one supervisor, and 1 has two. In the free private sector, there are 3 schools, 1 with no supervisor, 1 with one supervisor, and 1 with two. In the non-free private sector, there are 5 schools, 4 of which

have no supervisor, and 1 has one supervisor. In total, there are 19 schools in Baalbek-Hermel, 11 of which have no supervisor, 5 have one supervisor, and 2 have two.

Overall, most schools in Lebanon suffer from a lack of supervisors who teach, with the vast majority of schools, especially in the public sector, not having any supervisors.

5.2. Number of Coordinators Also Teaching in the School

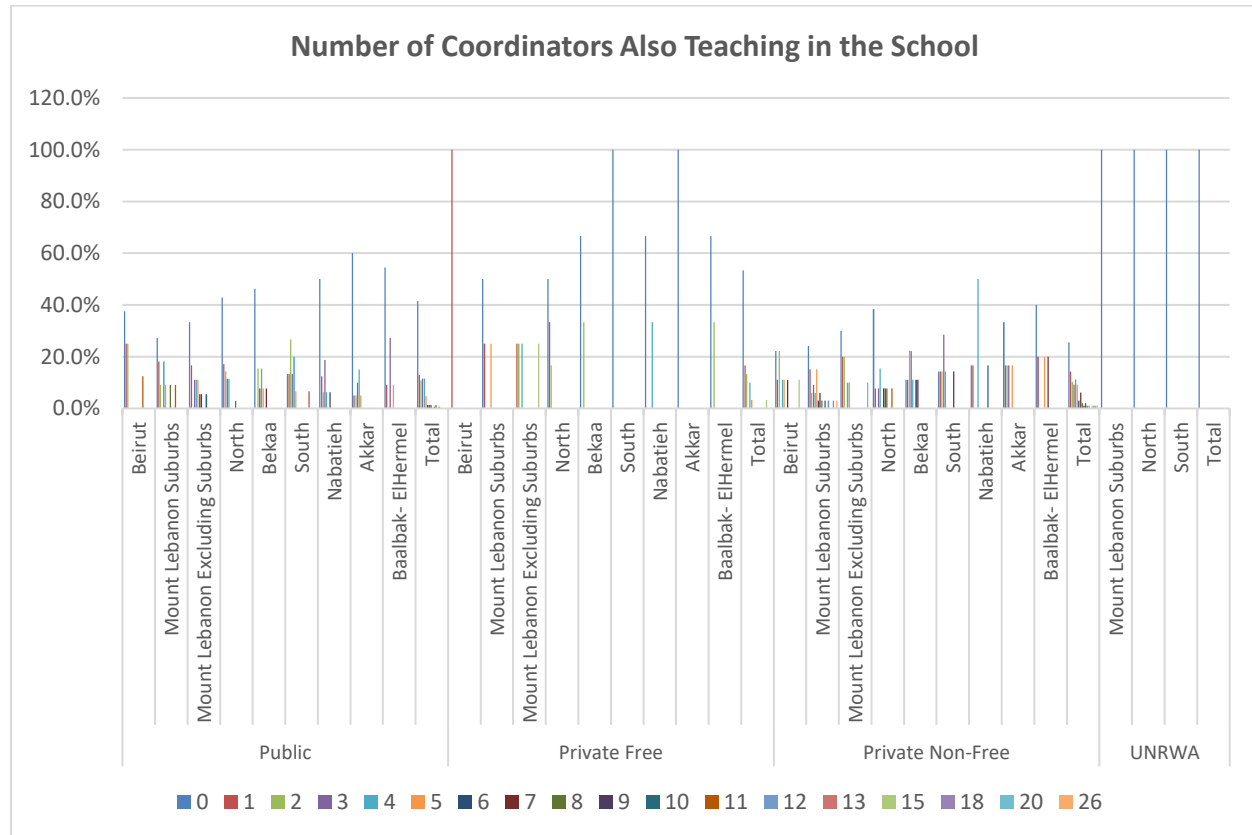


Chart (36): Number of Coordinators Also Teaching in the School

The number of coordinators also teaching in Lebanese schools varies between sectors. In Beirut, the public sector comprises a large proportion of schools, with a certain percentage of schools lacking coordinators who teach. The free private sector has only one school with a coordinator. The non-free private sector exhibits diversity in the distribution of coordinators across schools.

In Mount Lebanon - Suburbs, the majority of public schools lack coordinators, and the free private sector also contains schools without coordinators. The non-free private sector includes schools with varying numbers of coordinators.

In Mount Lebanon (excluding suburbs), the public sector shows a significant proportion of schools without coordinators. The free private sector is split between schools with one coordinator, while the non-free private sector has schools with two coordinators.

In the North and Bekaa, the public sector has a large proportion of schools without coordinators, while the private sectors (both free and non-free) show a mixed distribution of coordinators.

In the South, Nabatieh, Akkar, and Baalbek-Hermel, there is variability in the number of coordinators between schools, with some schools having coordinators and others not.

In total, the public sector accounts for most schools without coordinators, while the non-free private sector shows greater diversity in the distribution of coordinators.

5.3. Number of Librarians Also Teaching in the School

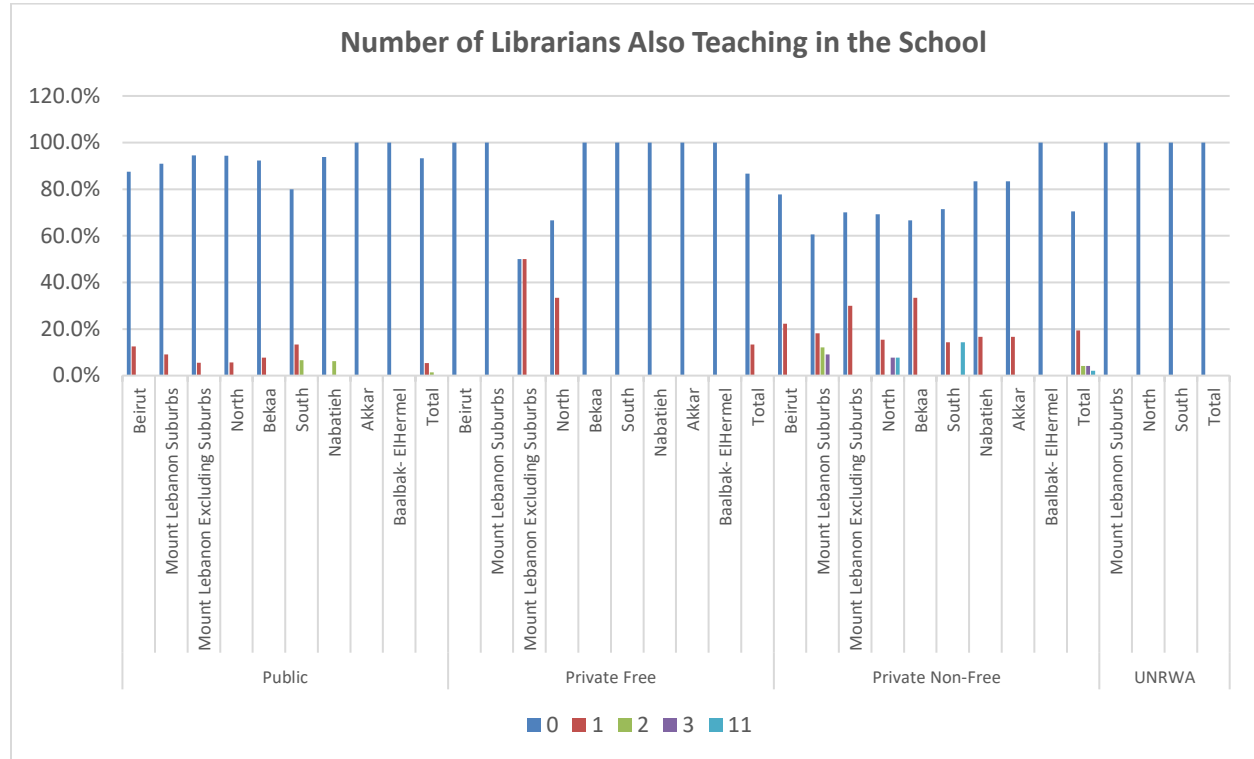


Chart (37): Number of Librarians Also Teaching in the School

There are 7 schools in Beirut's public sector without a librarian who teaches, and 1 school with a librarian who teaches. In the free private sector, there is 1 school without a librarian who teaches. In the non-free private sector, there are 7 schools without a librarian who teaches, and 2 schools with 1 librarian who teaches.

In Mount Lebanon (Suburbs), there are 10 schools in the public sector without a librarian who teaches, and 1 school with a librarian who teaches. In the free private sector, there are 4 schools without a librarian who teaches. In the non-free private sector, there are 20 schools without a librarian, 6 schools with one librarian, 4 schools with two librarians, and 3 schools with three librarians.

In Mount Lebanon (excluding suburbs), there are 17 schools in the public sector without a librarian who teaches, and 1 school with a librarian. In the free private sector, there are 2 schools without a librarian, and 2 schools with 1 librarian. In the non-free private sector, there are 7 schools without a librarian, and 3 schools with one librarian.

In the public sector, out of 147 schools, 137 schools do not have librarians who teach, 8 schools have 1 librarian, and 2 schools have 2 librarians. In the free private sector, out of 30 schools, 26 schools do not have librarians who teach, and 4 schools have 1 librarian. In the non-free private sector, out of 98 schools, 69 schools do not have librarians, 19 schools have 1 librarian, 4 schools have 2 librarians, 4 schools have 3 librarians, and 2 schools have 4 librarians. In UNRWA schools, none of the 4 schools have librarians who teach.

The overall result shows that most schools (84.6%) do not have librarians who teach, with relative progress in the non-free private sector.

5.4. Number of IT workers who also teach at the school

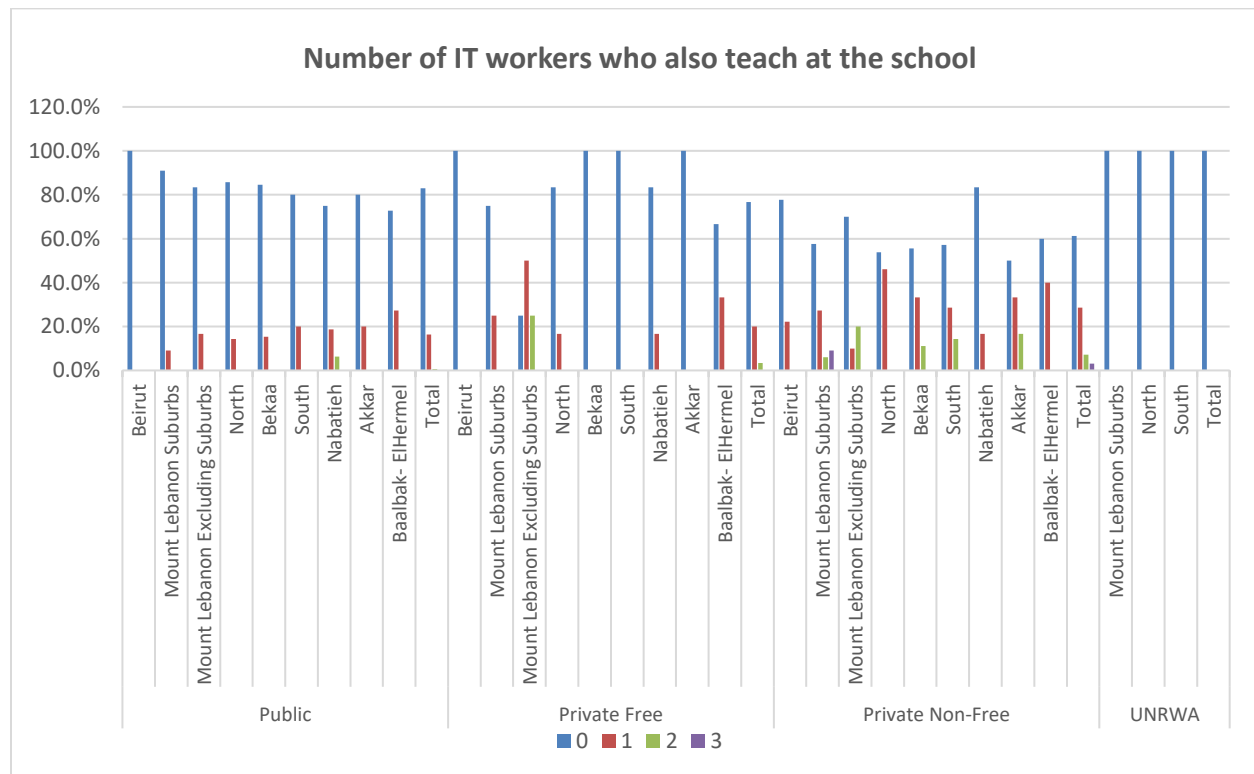


Chart (38): Number of IT workers who also teach at the school

In Beirut, the public sector does not have any IT workers teaching, reflecting the lack of full integration of IT into the educational process. The free private sector has only one school, which also does not have any IT workers teaching. The non-free private sector includes seven schools without IT workers teaching, with two schools having only one IT worker. In total, 88.9% of schools in Beirut do not have IT workers teaching.

In Mount Lebanon - Suburbs, the public sector includes 11 schools, 10 of which do not have IT workers teaching, making up 90.9%. The free private sector includes four schools, 75% of which do not have IT workers teaching, while the non-free private sector consists of 19 schools, 57.6% of which do not have IT workers teaching. UNRWA schools report 100% of schools without IT workers teaching.

In Mount Lebanon (excluding suburbs), the public sector includes 18 schools, 15 of which do not have IT workers teaching, representing 83.3%. The free private sector includes four schools, 75% of which do not have IT workers, while the non-free private sector contains 10 schools, with 70% of these schools lacking IT workers.

Thus, it can be observed that the public sector suffers from the limited use of IT workers in the educational process, while the free private sector shows greater balance with limited integration of IT workers. The non-free private sector shows more diversity in using IT workers, with a reasonable proportion of schools relying on them.

5.5. Number of laboratory technicians who also teach

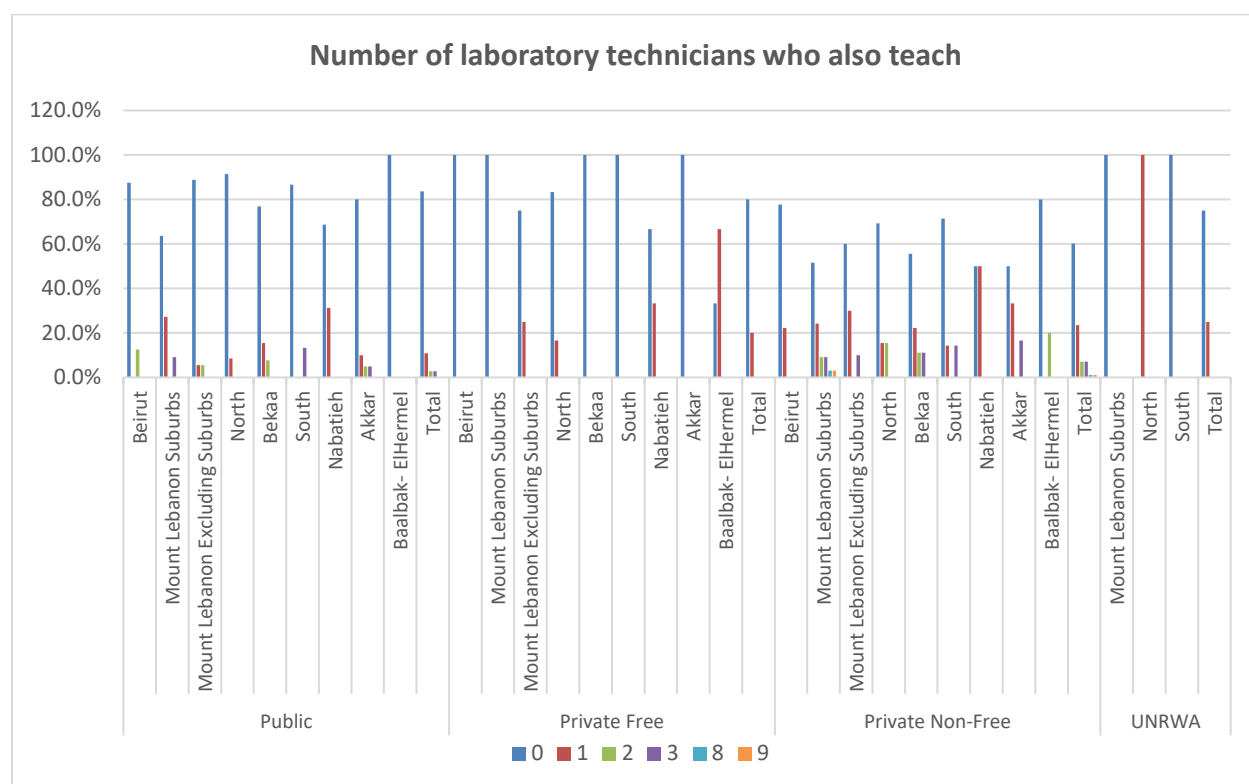


Chart (39): Number of laboratory technicians who also teach

In public schools in Beirut, there are seven schools that do not have laboratory technicians who teach, and one school that has a laboratory technician. In the free private sector, there is one school without laboratory technicians who teach. In the non-free private sector, seven schools do not have laboratory technicians, while two schools have one laboratory technician. Overall, the majority of schools in Beirut do not have laboratory technicians teaching, with a small percentage containing technicians.

In Mount Lebanon (suburbs), there are seven schools in the public sector without laboratory technicians who teach, three schools with one laboratory technician, and one school with a laboratory technician. In the free private sector, there are four schools without laboratory technicians who teach. In the non-free private sector, 17 schools lack laboratory technicians, while

eight schools have one laboratory technician, and three schools have multiple technicians. The overall results indicate diversity between schools with and without laboratory technicians.

In Mount Lebanon (excluding suburbs), 16 public schools do not have laboratory technicians, and one school contains a laboratory technician. The free private sector includes three schools without laboratory technicians, while one school has a laboratory technician. In the non-free private sector, six schools do not have laboratory technicians, while three schools have one laboratory technician. Overall, most schools in the province do not have laboratory technicians.

In the North, 32 public schools do not have laboratory technicians, while three schools have a laboratory technician. In the free private sector, five schools do not have laboratory technicians, and one school has a laboratory technician. In the non-free private sector, nine schools lack laboratory technicians, while four schools have one or more laboratory technicians. The overall results indicate that the vast majority of schools do not have laboratory technicians.

In the Bekaa, ten public schools do not have laboratory technicians, and two schools have a laboratory technician. In the free private sector, three schools lack laboratory technicians. In the non-free private sector, five schools lack laboratory technicians, and three schools have one or more technicians. The overall results indicate that a large proportion of schools do not have laboratory technicians, with some schools containing them.

In the South, 13 public schools lack laboratory technicians, and two schools have a laboratory technician. In the free private sector, one school does not have a laboratory technician. In the non-free private sector, five schools lack laboratory technicians, while two schools contain one or more laboratory technicians. The overall results indicate that very few schools contain laboratory technicians.

The results in Nabatieh show that most schools do not have laboratory technicians, with a smaller percentage containing technicians. Similarly, the results in Akkar show that the vast majority of schools lack laboratory technicians, with a small percentage having technicians. The results in Baalbek-Hermel indicate that most schools do not have laboratory technicians, with only a few schools containing technicians.

Most public schools do not have laboratory technicians teaching, with only a few schools containing one or more technicians. In the free private sector, most schools do not have laboratory technicians, but a small percentage have technicians. The non-free private sector shows more diversity, with a larger proportion of schools having one or more technicians. UNRWA schools show that the vast majority do not have laboratory technicians, with a small percentage containing one technician.

5.6. Number of other administrators who also teach at the school

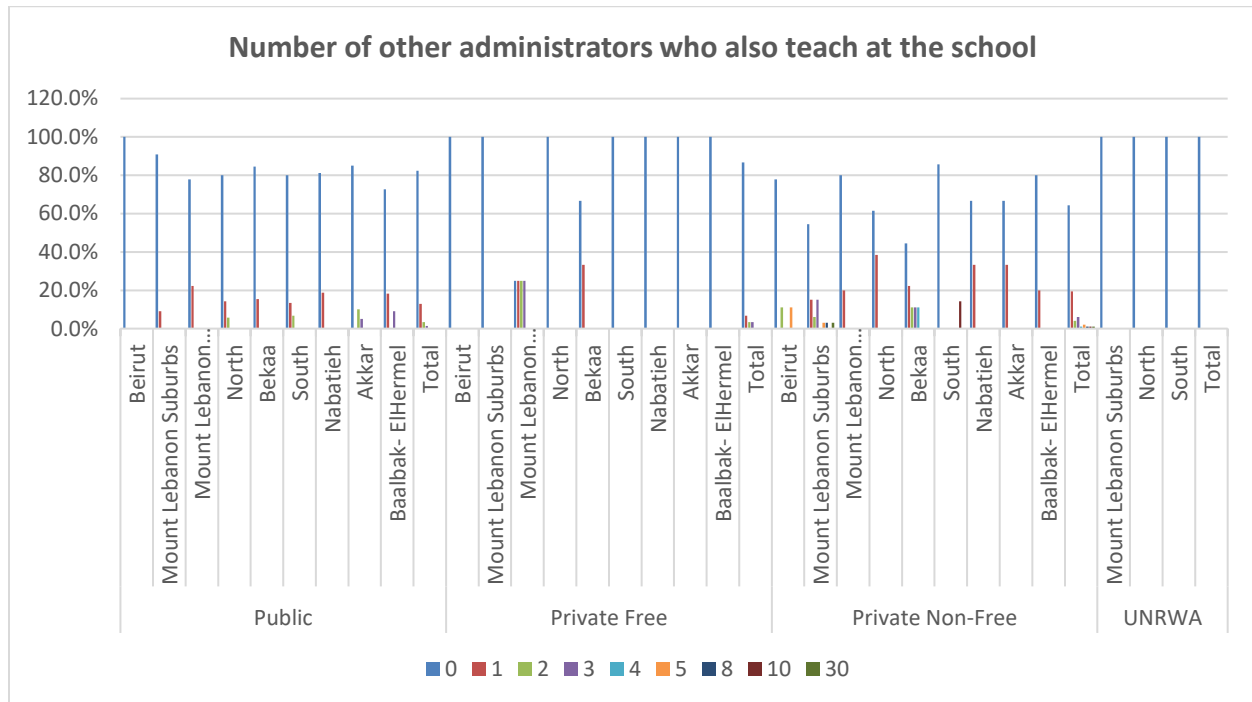


Chart (40): Number of other administrators who also teach at the school

In the public sector, there are 121 schools without administrators who teach, 19 schools with one administrator, 5 schools with two administrators, and 2 schools with three administrators. No schools have more than three administrators. The total for the public sector refers to 147 schools out of the total number of schools.

In the free private sector, 26 schools do not have administrators who teach, 2 schools have one administrator, 1 school has two administrators, and 1 school has three administrators. No schools have more than three administrators. The total for the free private sector refers to 30 schools out of the total number of schools.

In the non-free private sector, 63 schools do not have administrators who teach, 19 schools have one administrator, 4 schools have two administrators, 6 schools have three administrators, 1 school has four administrators, 2 schools have five administrators, 1 school has six administrators, and 1 school has seven administrators. The total for the non-free private sector refers to 98 schools out of the total number of schools.

In UNRWA schools, 4 schools do not have administrators who teach, and no schools have any administrators who teach. The total for UNRWA schools refers to 4 schools out of the total number of schools.

The data above indicate that schools without administrators who teach represent the vast majority. The number of administrators who teach is significantly lower across all sectors, with a relative concentration in the non-free private sector.

6. Number of contracted teachers in all designations

The public sector in Beirut includes schools with a variety of numbers of contracted teachers, with some schools having two contracted teachers, others having ten, and still others with fourteen or eighteen contracted teachers. The free private sector includes one school with five contracted teachers. The non-free private sector includes schools with various numbers of contracted teachers, including some with forty-five contracted teachers.

In Mount Lebanon (suburbs), the public sector includes schools with contracted teachers, including schools with nineteen teachers and others with six teachers. The free private sector includes schools with contracted teachers, as well as one school with only one teacher. The non-free private sector includes schools with five contracted teachers, as well as others with two or three teachers. The UNRWA sector includes one school with ten contracted teachers.

In Mount Lebanon (outside suburbs), the public sector includes schools with three contracted teachers. The free private sector includes schools with contracted teachers, with some schools having two teachers. The non-free private sector includes schools with contracted teachers, as well as schools with two or three teachers.

In the North, the public sector includes schools with three contracted teachers. The free private sector includes schools with contracted teachers. The non-free private sector includes schools with contracted teachers. The UNRWA sector includes one school.

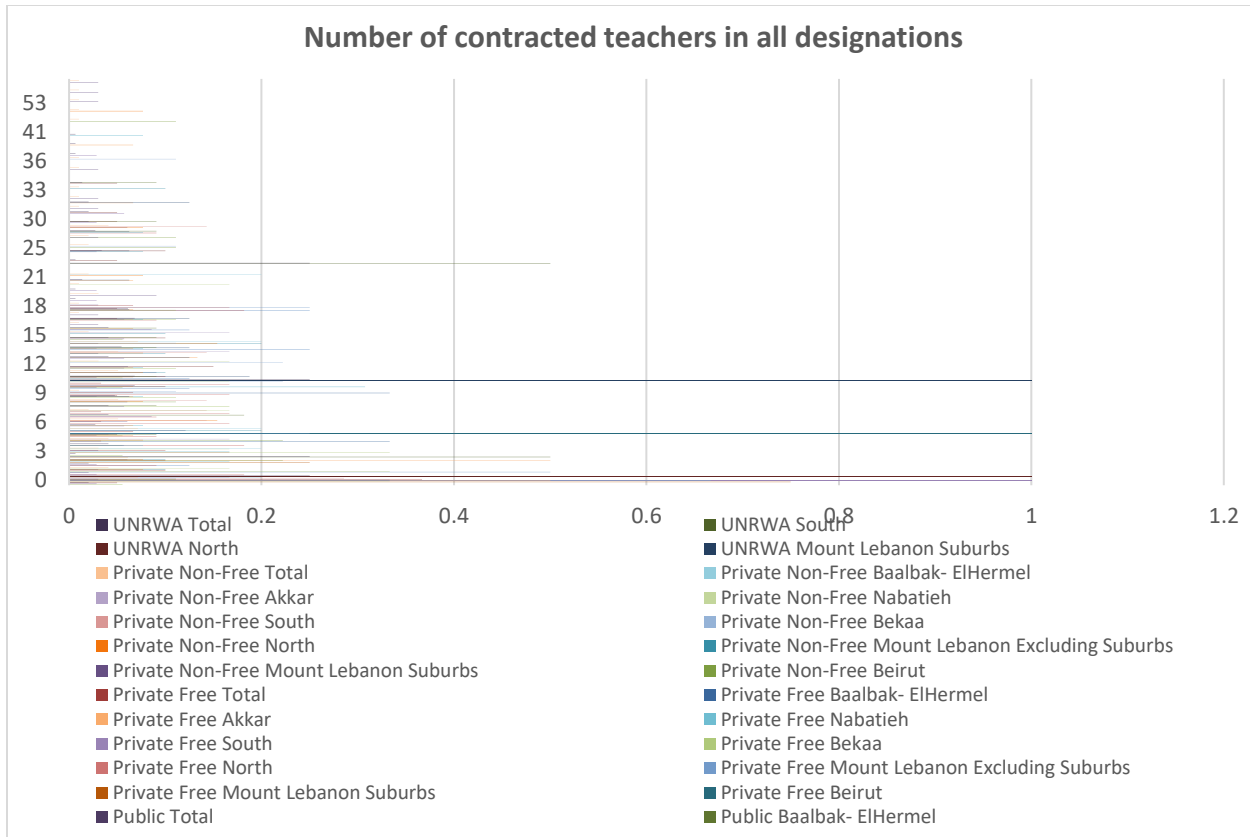


Chart (41): Number of contracted teachers in all designations

In Bekaa, the public sector includes schools with contracted teachers, as well as some schools with two or more teachers. Both the free and non-free private sectors include schools with contracted teachers.

In the South, the public sector includes schools with contracted teachers. The free private sector includes one school. The non-free private sector includes schools with contracted teachers. The UNRWA sector includes two schools.

In Nabatieh, the public sector includes schools with contracted teachers. Both the free and non-free private sectors include schools with contracted teachers.

In Akkar, the public sector includes schools with contracted teachers. The free private sector includes two schools. The non-free private sector includes schools with contracted teachers.

In Baalbek-Hermel, the public sector includes schools with one teacher in most cases. Both the free and non-free private sectors include schools with contracted teachers.

Overall, the distribution of contracted teachers varies significantly across different educational sectors and regions. In the public sector, schools exhibit considerable variation in the number of contracted teachers, ranging from as few as one to as many as eighteen. The free private sector typically has a limited number of contracted teachers, with some schools employing as few as one. In contrast, the non-free private sector often employs a higher number of contracted teachers, with

some schools having as many as forty-five. UNRWA schools, present in certain regions such as Mount Lebanon and the South, employ a modest number of contracted teachers, with some schools having as few as one or two.

7. Support staff (the remaining school employees)

7.1. Number of support staff

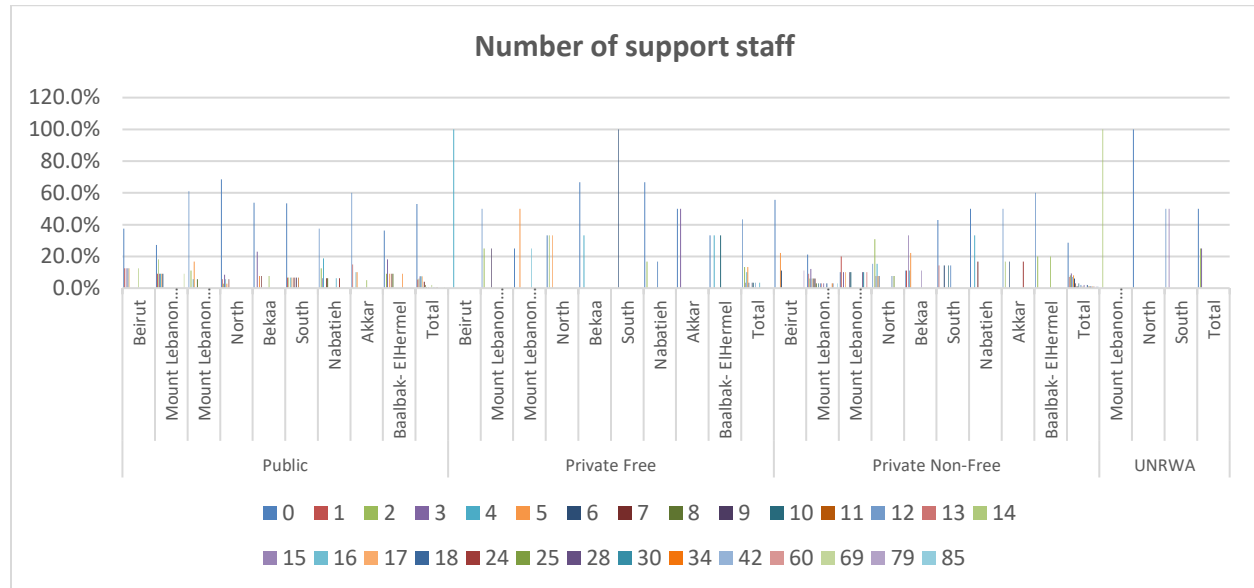


Chart (42): Number of support staff

In the suburbs of Mount Lebanon, there are 11 schools in the public sector. The majority of these schools do not have support staff, while some schools have 2 support staff members, or a varying number of support staff ranging from 1 to 6. The public sector represents 22.4% of the total number of schools. In the free private sector, there are 4 schools, some of which do not have support staff, while others have 2 or 9 support staff members. The free private sector represents 8.2% of the total number of schools. In the non-free private sector, there are 33 schools. The majority of these schools do not have support staff, with some schools having a diverse number of support staff members. The non-free private sector represents 67.3% of the total number of schools. In the UNRWA sector, there is one school with 2 support staff members, representing 2.0% of the total number of schools. We conclude that the non-free private sector is the most represented in terms of both the number of schools and the number of support staff.

In Mount Lebanon (excluding suburbs), the public sector represents 56.3% of the schools in the region. A large proportion of these schools do not have support staff, while some schools have one support staff member. In the free private sector, 12.5% of the schools are represented, and half of these schools have 5 support staff members. In the non-free private sector, 31.3% of the schools are represented, with some schools having one support staff member or a varying number of support staff. We conclude that the public education sector is the largest in terms of the number of schools in the region, but it faces a shortage of support staff, while the free private sector shows a balance.

In the North, the public sector represents 63.6% of the schools in the region, with a large proportion lacking support staff, while some schools have one support staff member. In the free private sector, 10.9% of the schools are represented, with some schools lacking support staff. In the non-free private sector, 23.6% of the schools are represented, with some schools having a varying number of support staff members. The UNRWA sector contains only one school, which does not have any support staff. The conclusion is that the public sector is the largest in terms of the number of schools in the North, but it suffers from a shortage of support staff.

In Bekaa, the public sector represents 52% of the schools. Nearly half of the public schools lack support staff, while some schools have 3 support staff members. In the free private sector, it represents 12% of the total number of schools, with some of these schools lacking support staff.

In the non-free private sector, it represents 36% of the schools, with some schools having a varying number of support staff members. The conclusion is that the public sector is the largest, but it faces a serious shortage of support staff.

In the South, the public sector represents 60% of the total schools in the region, with some schools lacking support staff. The free private sector represents 4% of the total number of schools, and all of these schools have 6 support staff members. The non-free private sector represents 28% of the schools, with some of these schools lacking support staff. The UNRWA sector represents 8% of the schools, some of which have one support staff member. The conclusion is that the public and non-free private education sectors are the most represented in the South, but they face a significant shortage of support staff.

In Nabatieh, the public sector represents 57.1% of the total schools, with some schools lacking support staff. In the free private sector, it represents 21.4% of the total number of schools, with some of them lacking support staff. In the non-free private sector, it represents 21.4% of the schools, with some of them lacking support staff. The conclusion is that the public education sector is the most represented, but it faces a shortage of support staff.

In Akkar, the public sector represents 71.4% of the total schools, with some schools lacking support staff. In the free private sector, it represents 7.1% of the total number of schools, with some of them lacking support staff. In the non-free private sector, it represents 21.4% of the total number of schools, with some of them lacking support staff. The conclusion is that the public education sector is the most represented in Akkar, but it suffers from a clear shortage of support staff.

In Baalbek-Hermel, the public sector represents 57.9% of the total schools in the region. Some of the public schools lack support staff. In the free private sector, it represents 15.8% of the total schools, with some of these schools lacking support staff. In the non-free private sector, it represents 26.3% of the total schools, with some schools lacking support staff. The conclusion is that the public education sector represents the largest proportion, but it suffers from a major shortage of support staff.

7.2.Number of Guards

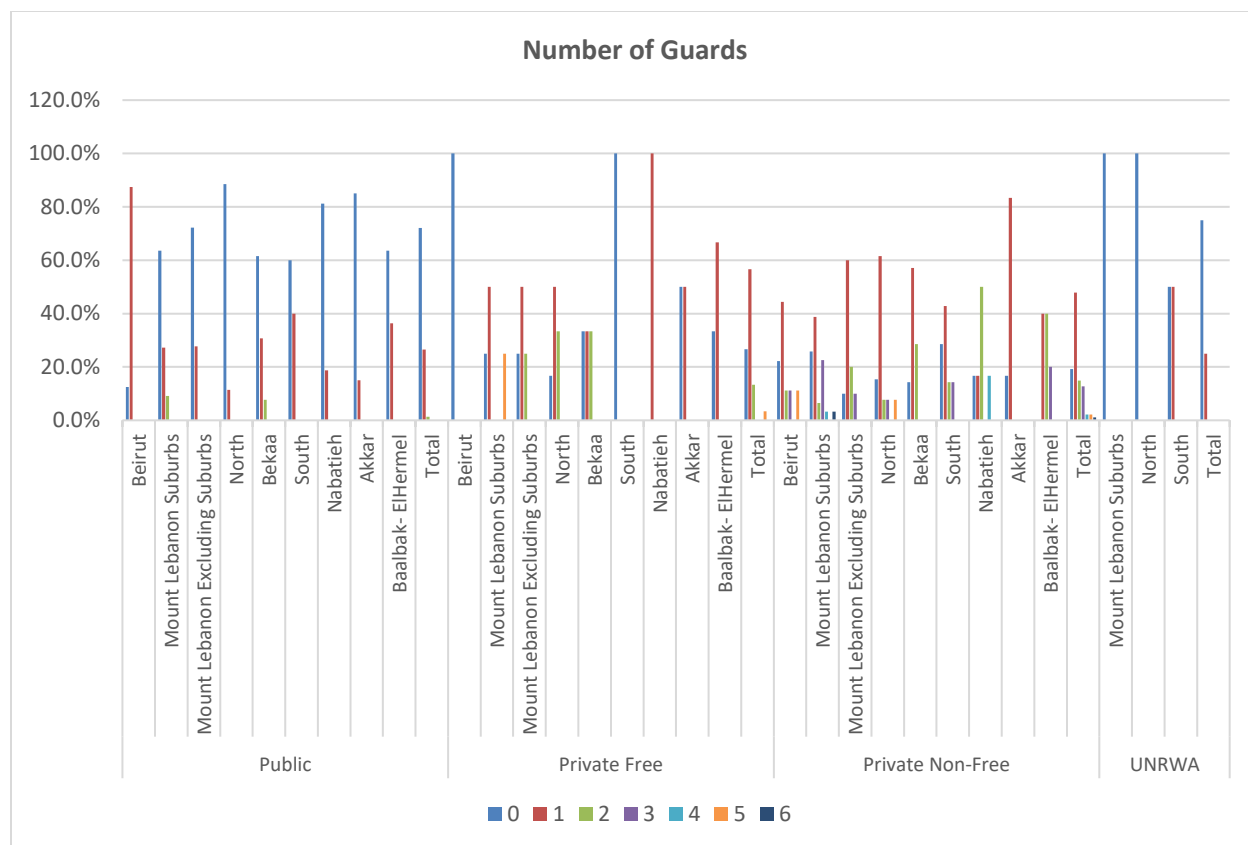


Chart (43): Number of guards

In Beirut, most schools in the public sector have one guard, while some schools have no guard at all. In the free private sector, no schools have guards. In the non-free private sector, some schools have one guard, while others have no guards, and some have more guards.

In Mount Lebanon suburbs, many schools in the public sector do not have guards, while other schools have one or more guards. In the free private sector, some schools have one guard, while other schools have none. In the non-free private sector, some schools have one guard, while others have no guards, and some have three guards.

In Mount Lebanon excluding suburbs, many schools in the public sector do not have guards, while other schools have one guard. In the free private sector, there is an equal distribution between schools with zero, one, or two guards. In the non-free private sector, some schools have one guard, while others have no guards.

In the North, many schools in the public sector do not have guards, while other schools have one guard. In the free private sector, some schools have one guard, while other schools have two guards. In the non-free private sector, some schools have one guard, while others have no guards.

In the Bekaa, many schools in the public sector do not have guards, while other schools have one guard. In the free private sector, there is an equal distribution between schools with zero or one guard. In the non-free private sector, some schools have one guard, while others have two guards.

In the South, many schools in the public sector do not have guards, while other schools have one guard. In the non-free private sector, some schools have one guard, while others have no guards.

In Nabatieh, many schools in the public sector do not have guards, while other schools have one guard. In the free private sector, all schools have one guard. In the non-free private sector, some schools have two guards.

In Akkar, many schools in the public sector do not have guards, while other schools have one guard. In the free private sector, there is an equal distribution between schools with zero or one guard.

In Baalbek-Hermel, many schools in the public sector do not have guards, while other schools have one guard. In the non-free private sector, some schools have two guards, while others have three guards.

Overall, it appears that the distribution of guards in schools varies greatly by governorate and education sector. Public schools have the highest proportion of schools with no guards, especially in Beirut and Akkar. Private education, especially non-free, shows a relatively better distribution of guards.

Third: Analysis of the Research Question Results

1. Research Question: "What are the key differences in preparedness between Lebanon's public and private schools for implementing the developed curriculum?"

To address the research question regarding the differences in readiness levels between public and private schools for implementing the updated curricula in Lebanon, the analysis relied on the results of all research-related questions. These questions aimed to explore strengths and weaknesses, as well as the opportunities and challenges associated with implementing these curricula. It is worth noting that all percentages mentioned in this study are based solely on the responses of the study sample, and the results will be presented in detail in the following sections.

2. Analysis of the Results for the Second Research Question: What are the main differences in leadership competencies required for the effective implementation of the updated curricula between public and private schools?

2.1. How efficient is leadership in the process of applying the updated curricula?

How competent is the school principal in leading the implementation of the updated curricula?

Human resource planning focuses on forecasting the required number of staff for the school, distributed across various positions based on specific qualifications and within a certain timeframe to achieve the school's goals. This process facilitates identifying staff members in terms of their numbers, qualifications, and needs, as well as estimating the optimal use of human resources. It also prepares for addressing shortages, filling gaps, and working on the professional development of all staff.

Planning involves determining the learners' current status and competencies in the school, identifying the need for new staff with new qualifications based on educational and technological developments, and specifying staff shortages for the coming period or surpluses in certain positions, along with ways to handle both scenarios.

Management is a continuous human and social process aimed at utilizing available resources within and outside the institution through planning, decision-making, organizing, coordinating, problem-solving, directing, supervising, monitoring, and evaluating to achieve specified goals with the highest degree of effectiveness and efficiency. These processes are not separate but are interconnected and interdependent, where each process influences and is influenced by the others.

The planning process begins with defining the tasks and activities required to achieve goals and ends with identifying the simulations that will be used to evaluate what has been successfully accomplished. It includes specifying tasks, supervising them, activating communication channels between the administrative and teaching staff, parents, and the local community, allocating resources, and implementing them within a specific timeframe.

Evaluation is considered a routine activity in the life of the school, with a comprehensive impact on all its elements. When properly utilized, it leads to improved learning outcomes for students, enhances teachers' efficiency, and increases their productivity. This requires the school principal to evaluate all aspects of the educational/learning process within the school, its impact on students' academic achievements and growth, and the quality of education/learning. Additionally, the principal must take the necessary measures to improve the quality of education and increase the school's effectiveness.

Key areas of school evaluation include assessing the quality of the educational/learning process, the quality of students' learning achievements, leadership effectiveness, and strategic planning quality. Evaluation is embedded in the school's culture, reflecting its capacity for development, change, and innovation, thereby enhancing the institutional climate and fostering effective human relationships within the school. Therefore, it is essential to promote a culture of self-evaluation in educational institutions (student self-assessment, principal self-assessment, and teacher self-assessment), which plays a fundamental role in performance improvement and encouraging renewal and innovation.

Among the most important qualities a school principal must possess to succeed as an educational leader is problem-solving ability. A school principal faces various problems that must be addressed appropriately to prevent their escalation, which could disrupt the school's operations. Thus, the principal must be capable of identifying existing issues and resolving potential future problems. For effective management, the principal must demonstrate strong, professional, participatory, and humane leadership. Since the school is inherently a communicative community, the principal must possess communication skills that enhance their effectiveness inside and outside the school, facilitating the participation of all stakeholders in the process of school improvement and development.

What sets one school apart from another is its administrative and educational performance, led by an educational leader who enhances its effectiveness and improves its productivity. The educational leader is the person who takes initiatives to improve and develop the existing situation and has an institutional vision to achieve goals. Therefore, the educational leader must possess general leadership qualities as well as specific characteristics pertinent to educational work.

The second research question was answered by principals, supervisors, coordinators, and teachers. The presentation of the answers relied on analyzing factors in both the public and private sectors, categorizing them by governorates, and then comparing the two sectors to identify the impact of these factors. A Key Insights of the four questionnaires' results for each aspect of the question was also provided. The answers were as follows:

A. Developing Strategic Plans to Achieve School Objectives

Analysis of Principal Questionnaire Results

The results show that UNRWA schools achieve the highest rates in terms of regularly setting strategic plans across all governorates, reflecting their stability. In the public sector, significant

variation exists between governorates, ranging from "never" in Baalbek-Hermel to "always" in Akkar. The free private sector performs well in the governorates where it operates.

Analysis of Supervisor Questionnaire Results

The results indicate that free private education and UNRWA schools are the best in terms of effectively adhering to strategic planning. Meanwhile, public and not free private education show disparities between governorates, especially in the North and Bekaa, with notable excellence in Mount Lebanon and the South across most sectors.

Analysis of Coordinator Questionnaire Results

The findings reveal significant variation in the commitment of public schools to setting strategic plans to achieve their objectives across different governorates. As for not free and free private schools, the governorates surrounding Mount Lebanon, Bekaa, and the North recorded outstanding results, reflecting strong leadership in strategic planning within these sectors.

On the other hand, the public sector suffers from noticeable inconsistencies between governorates; for example, Beirut demonstrates inconsistency in implementation (33.3% always implement it and 33.3% rarely). Free private schools show strong performance in the outskirts of Mount Lebanon and Bekaa (60% always implement). Not free private schools lead with remarkable results in Beirut (66.7%), the North (67.7%), and Bekaa (62.5%). UNRWA schools are the most committed, particularly in the North, where they recorded a 100% adherence rate.

Analysis of Teacher Questionnaire Results

The results show that the not free private sector outperforms the public and free private sectors in strategic planning across most governorates, particularly in Mount Lebanon, Nabatieh, and Baalbek-Hermel. In Beirut, this sector demonstrates better performance than the public sector, with rates of 55.9% compared to only 33.3%. The standout governorates include Mount Lebanon (excluding the outskirts), which records the highest commitment (71% in private schools). In Nabatieh, the not free private sector excels with a rate of 71.9%.

Conversely, the public sector exhibits significant variation between governorates, with good performance in Mount Lebanon but weak results in Baalbek-Hermel and the North. The free private sector achieves good rates in most governorates, except in the South, where performance is low. The South, the North, and Baalbek-Hermel face notable challenges across all sectors compared to other governorates.

Key insights

The feedback shows consensus that UNRWA schools and the not free private sector are the most distinguished in strategic planning. On the other hand, the public and free private sectors require

improvement in some peripheral governorates, such as the North, the South, and Bekaa, which represent common challenges. There is agreement on the necessity of improving these governorates to advance strategic planning.

Despite this consensus on key points, opinions differ in the detailed evaluation of the various sectors by governorate.

B. How Are Plans for Resource Management, Task Distribution, and Priority Setting Developed?

Analysis of Principal Questionnaire Results

The results indicate that public and not free private sectors show that school principals efficiently and effectively develop plans for resource management, task distribution, and priority setting. The South and Beirut governorates demonstrate outstanding performance across all sectors. However, Akkar and Baalbek-Hermel report low rates of effective and efficient stakeholder involvement. In some governorates, reliance on individual decisions by principals remains prevalent.

When comparing governorates, Beirut leads in involving all stakeholders in planning related to resource management, task distribution, and priority setting in the public and not free private sectors. Approximately 87.5% of public schools and 88.9% of not free private schools adhere to effective and efficient planning practices, with distinguished performance in the North and Baalbek-Hermel (100%). The free private sector shows less variation due to relatively standardized mechanisms.

According to principals, the public sector achieves moderate to high rates of stakeholder participation in planning for resource management, task distribution, and priority setting. However, it suffers from significant regional disparities, with notable declines in Akkar and Bekaa. The free private sector. The results show high participation in most governorates, with notable excellence in schools in the South and Bekaa. The not free private sector demonstrates exceptional stakeholder involvement with effectiveness and efficiency, particularly in governorates like Beirut and Baalbek-Hermel. UNRWA schools also exhibit full commitment to involving all stakeholders effectively and efficiently, especially in Mount Lebanon and the North.

Analysis of Supervisor Questionnaire Results

The results from the public sector indicate that 39.2% of supervisors believe that "principals develop plans effectively and efficiently," while 38.7% think that "some of them participate effectively and efficiently." Therefore, the total positive feedback (effective and efficient participation) is approximately 77.9%. Meanwhile, 22.1% of supervisors report negative feedback, citing the absence of a clear mechanism or participation without notable effectiveness.

In free private education, the overall percentages reveal that 61.3% of schools believe that "principals develop plans effectively and efficiently," while 22.6% think that "some of them participate effectively and efficiently." Additionally, 3.2% of supervisors state that "there is no

clear mechanism for planning," and another 3.2% believe that "some stakeholders participate but without notable effectiveness." Based on these figures, the total effective and efficient participation is approximately 83.9%.

Regarding not free private education, 56.4% of supervisors report "effective and efficient performance," while 37.6% believe that "some stakeholders perform effectively and efficiently." Furthermore, 1.7% of schools note that "some stakeholders participate but without notable effectiveness." Based on these data, the total effective participation is approximately 94.0%.

UNRWA schools stand out with 100% effective participation in Mount Lebanon and the South, reflecting their organizational excellence.

Outstanding Performance: Beirut leads all sectors with positive rates across all areas, particularly in free and not free private education (100%). The South achieves the highest positive rates in the public sector (90.7%) and the private sector (100%). Mount Lebanon (outskirts) and the North also show high percentages ranging between (82%) to (96%). Baalbek-Hermel records medium positive rates (76.5% in the public sector), with excellence in private education (100%).

The private sector clearly excels in effective planning mechanisms compared to the public sector, especially in Beirut and the South. The governorates of the South, Beirut, Bekaa, and the North achieve the highest positive rates in the public sector. In contrast, the lower-performing governorates (Akkar and Baalbek-Hermel) need to develop comprehensive planning mechanisms.

UNRWA schools stand out with 100% effective participation in Mount Lebanon and the South. Beirut stands out among the governorates, especially in both free and not free private education, with a rate of 100% based on supervisor responses. The overall positive performance for effective participation is approximately 94.0%.

Analysis of Teacher Questionnaire Results

The analysis of the teacher questionnaire shows that the free private sector demonstrates strong reliance on effective participation from all stakeholders, particularly in the North and South governorates. The not free private sector shows variation in participation rates across governorates, with some reliance on individual decisions in Beirut. The highest rates of effective participation (13.3% for some stakeholders and 16.4% for all stakeholders) come from this sector, placing it ahead of other sectors. It stands out as a sector with a high level of participation and efficiency in planning, with opportunities to improve in schools that face weaknesses in planning mechanisms or participation.

UNRWA schools demonstrate a positive model for planning mechanisms. Teachers believe that the level of participation in planning is more than 84.9% in schools, either fully or partially, which reflects the relatively advanced planning mechanisms compared to other sectors. There is also a decline in reliance on individual decisions, which make up only 6.8% of the overall situation, an encouraging indicator compared to other sectors. The availability of material and human resources

enables schools to achieve wide and effective participation. However, the lack of a clear mechanism hinders efficiency.

Analysis of Coordinator Questionnaire Results

The analysis of the coordinator questionnaire reveals that most governorates, such as Beirut, the North, and Baalbek-Hermel, have a good level of participation, with a higher percentage of "all stakeholders participating effectively and efficiently." Bekaa is an exception, where 65.0% of schools involve all stakeholders in the planning process.

Beirut and Bekaa show full participation from all stakeholders in the free private sector, while the North takes a stronger individual decision-making approach. Similar trends are observed in the free private sector, with significant participation in some governorates such as the South and Baalbek-Hermel. However, some principals still make individual decisions or allow limited stakeholder involvement. Schools in the North stand out for involving stakeholders effectively with a rate of 100%.

We conclude that all respondents agree that the level of participation is high, especially in the non-non-free private sector and UNRWA sector, with praise for the performance in the South and Beirut. Regarding individual decision-making, some principals have indicated that it is still used in certain governorates. We also observe from the responses of the supervisors that individual decision-making is evident in low-performing governorates, such as Akkar and Baalbek-Hermel. For teachers, the number of principals who make individual decisions ("individual decisions") is only 6.8% of the overall situation, which is a positive indicator. Coordinators also pointed out that some principals in both the free and not free private sectors make individual decisions.

Everyone agrees that the percentage of principals who make individual decisions is generally low, but it still exists in some governorates or sectors. There is also a consensus that the UNRWA sector is the best in terms of participation and effective planning.

The not free private sector enjoys a high level of participation and efficiency, but it needs improvement in some governorates.

We conclude that there are high levels of effective participation, with praise for the UNRWA and private sectors. There is geographical variation, with Beirut and the South standing out, and clear weaknesses in Akkar and Bekaa. Regarding individual decisions, they are few overall but still present in some governorates. The UNRWA sector is considered an ideal model for organization and effective participation. The not free private sector performs well but faces challenges in some governorates.

Key Insights

We observe a generally good level of participation across most sectors, despite the private sector outperforming the public sector. This highlights the need to enhance participation in low-performing governorates (Akkar and Bekaa) and provide opportunities to improve performance in areas facing challenges in team involvement. Additionally, leveraging the models of distinguished sectors to improve planning mechanisms is crucial.

Everyone agrees on the importance of participatory management through involving the team in the planning process and the need to develop sustainable solutions to improve the performance of principals in challenging governorates like Akkar and Bekaa.

C- Leadership Model Adopted in the Schools

Analysis of Principal Questionnaire Results

In the public sector, participatory leadership is the most adopted model, appearing in 90.5% of schools. This reflects the preference of public schools for involving individuals in decision-making and teamwork, which enhances the transparency of administrative and educational processes. Distributed leadership, which represents 7.5%, comes in second place and indicates that some schools rely on distributing roles and responsibilities to achieve their goals. Other models, such as individual leadership or centralized leadership, are almost non-existent, signaling a clear shift towards more collaborative and flexible management approaches.

In the free private sector, participatory leadership dominates with 80%, indicating that this sector values the involvement of various parties in the decision-making process. Distributed leadership comes second at 13.3%, reflecting a trend in some schools towards task distribution to facilitate management and improve efficiency. Nevertheless, individual and centralized leadership appear in very small percentages, reinforcing the free private sector's focus on modern management models.

In the non-fee private sector, participatory leadership is the most common model, at 84.7%, reflecting the sector's desire to create a participatory environment that contributes to achieving its educational goals. Distributed leadership represents 12.2%, indicating a limited reliance on this model. However, individual leadership is shown in small percentages, suggesting that some schools still prefer this traditional approach.

Meanwhile, UNRWA schools fully adopt the participatory leadership model at 100%. This focus reflects UNRWA's nature as an international organization that relies on involving all parties to ensure effective program implementation and achieve educational equity. The absence of any other models strengthens the full commitment to participatory leadership as a core strategy.

The data indicate that participatory leadership is the dominant model across all educational sectors, reflecting a general trend towards involving teachers and administrators in the decision-making process. However, distributed leadership appears significantly in the private sector, suggesting that private schools rely on distributing tasks and responsibilities among teams.

At the governorates level, Beirut schools rely almost entirely on participatory leadership, with 94.4%, and a small contribution from distributed leadership. In Mount Lebanon (suburbs), participatory leadership prevails at 85.7%, while distributed leadership represents 12.2%. In Mount Lebanon (excluding the suburbs), participatory leadership dominates at 90.6%.

In the north, the participatory model appears at 94.5%, with a small contribution from distributed leadership. In the Bekaa, participatory leadership records 88%, with 12% for distributed leadership. The south shows the strongest focus on participatory leadership at 96%.

In Nabatieh, participatory leadership is the most common model at 78.6%, while distributed leadership represents 17.9%. In Akkar, the participatory model represents 75%, followed by distributed leadership at 21.4%. In Baalbek-Hermel, participatory leadership accounts for 78.9%, with occasional contributions from other models.

The focus on participatory leadership as the main model is evident across all governorates and sectors, with some variation in the adoption of distributed leadership. Rural governorates such as Akkar and Baalbek-Hermel show a higher interest in distributed leadership compared to urban governorates like Beirut. This trend requires additional training support to strengthen these models and ensure their effectiveness in various local contexts.

Participatory leadership is predominant in most sectors and governorates, reflecting a collaborative educational environment and indicating enhanced cooperation within schools. However, there are noticeable percentages of schools that rely on individual leadership in some governorates, such as Baalbek-Hermel and Akkar.

Variations in the adoption of participatory leadership across governorates are particularly evident in the private sector. Individual leadership appears in varying percentages in governorates like Akkar and Baalbek-Hermel. There is a distinct contrast between governorates in the private sectors.

Analysis of the Supervisor Questionnaire Results

In public schools, the highest rates of participatory leadership are observed in Beirut, the North, and Baalbek-Hermel (81.8% and 88.2%). In Mount Lebanon (suburbs), the lowest rate is recorded (64.7%), and in Akkar (65.8%) with higher percentages of distributed leadership (23.7%) and individual leadership (7.9%).

In free private schools, principals in major governorates such as Beirut and Mount Lebanon perform excellently (100%), with most governorates showing similar results. However, notable variations are observed in Akkar, where the lowest percentage of participatory leadership is recorded (25%), with a reliance on distributed leadership (25%).

In private non-free schools, the northern governorates record high percentages of participatory leadership (94.4%), while Akkar faces challenges with lower rates (55.6%) and a notable presence of individual leadership (22.2%).

In UNRWA schools, the performance is consistent at 100% participatory leadership. We conclude that participatory leadership is the most common in all sectors, with UNRWA schools standing out.

There are noticeable disparities between governorates, with Beirut, the North, and Mount Lebanon showing stability, while Akkar suffers from a weakness in participatory leadership.

Analysis of Teacher Questionnaire Results

In the public sector, the most common model is "participatory leadership" (691 teachers), accounting for 67.9% of the sector and 36.3% of the total. The second most common is individual leadership with discussion and consideration of opinions, at 19.2% within the sector and 10.3% of the total (195 teachers). Individual leadership (also among the most common patterns) represents 11.7% of the sector and 6.3% of the total (119 teachers).

In free private schools, the most common model is participatory leadership, at 76.1% within the sector (159 teachers). Individual leadership is recorded at 9.6% (20 teachers), while individual leadership with discussion and consideration of opinions accounts for 13.9% (29 teachers). Other less common models are generally at 0.1% of the total, which aligns with one teacher per model.

In the private non-free sector, participatory leadership leads with a percentage of 69.7%, the highest in Beirut (83.1%) and Mount Lebanon suburbs (75.2%), and the lowest in Nabatieh (43.8%). Meanwhile, distributed leadership is higher compared to other sectors at 22.2%, with the highest percentages in Nabatieh (40.6%) and Bekaa (28.6%), and the lowest in Beirut (10.2%) and Mount Lebanon suburbs (20.3%).

In UNRWA schools, participatory leadership is the most common at 91.7%, with 100% in the North and South governorates, the highest rates, while individual and distributed leadership models are rare in this sector. A slight decrease is observed in Mount Lebanon suburbs (80%). Distributed leadership is only present at a small percentage in Mount Lebanon suburbs (20%).

Results based on the leadership style in different governorates indicate that participatory leadership is the most widespread model across all sectors and governorates. The highest percentages of participatory leadership are recorded in the South and Nabatieh governorates in most sectors. Baalbek-Hermel and Akkar governorates show low rates of participatory leadership, but they compensate with higher rates of distributed leadership.

A clear variation in the application of distributed leadership is evident across sectors, with the highest rates in the private non-free sector and the public sector. It appears notably in the governorates of Nabatieh, Akkar, and Baalbek-Hermel, especially in the public and private non-free sectors. Baalbek-Hermel governorate shows higher rates of distributed leadership compared to other governorates, possibly reflecting different school management conditions.

The free private sector excels in participatory leadership compared to other sectors. Beirut governorate leads in participatory leadership within the private non-free sector but is lower in the public sector. Akkar governorate shows a mix of moderate participatory leadership and high distributed leadership, which warrants a deeper examination of the reasons.

Analysis of Coordinator Questionnaire Results

In the public sector, leadership is mostly individual in Beirut governorate, where the principal heavily relies on themselves, with task distribution to the administrative team (44.4%).

The next model is dual leadership with the supervisor (33.3%), and participatory leadership is used at a small percentage (11.1%). In the free private schools, participatory leadership is fully utilized (100%). In the non-free private schools, participatory leadership is the dominant model (58.3%), followed by individual leadership with a top-down approach (33.3%), and dual leadership with the supervisor (8.3%).

In Mount Lebanon suburbs, participatory leadership dominates at 64.7% in the public sector, followed by individual leadership at 23.5% and dual leadership with the supervisor at 11.8%. This indicates a preference for involving a larger number of individuals in decision-making in the governorate. In the free private schools, participatory leadership is mainly used (80%), with a small percentage (20%) of individual leadership. In the non-free private schools, dual leadership with the supervisor is the most common model (84.8%), while participatory leadership represents only 2.2%.

In Mount Lebanon (excluding suburbs), participatory leadership seems to be the most used at 61.5%, followed by individual leadership at 30.8%. In the free private schools, only participatory leadership is used (100%). In the non-free private schools, dual leadership with the supervisor is the most common model (73.7%), followed by individual leadership at 15.8%.

In the North governorate, in public sector schools, participatory leadership is the most used model at 66.1%, followed by individual leadership at 23.7%, and dual leadership with the supervisor at 8.5%. A small portion (1.7%) relies on individual leadership depending on the coordinator. In the free private sector, only participatory leadership is used (100%). In the non-free private schools, the dominant model is participatory leadership (87.1%), followed by individual leadership at (9.7%) and dual leadership with the supervisor at (3.2%).

In the Bekaa governorate, participatory leadership is the most used in the public sector at (60.0%), followed by dual leadership with the supervisor at (25%) and individual leadership at (15%). The participatory leadership model is fully adopted in the free private schools (100%). In the non-free private schools, dual leadership with the supervisor is the most common model (75%), followed by individual leadership at (18.8%).

In the South governorate, participatory leadership is the most used model in public sector schools at (59.5%), followed by individual leadership at (26.2%) and dual leadership with the supervisor at (14.3%). Participatory leadership is used in free private schools at (60%), with (40%) of schools adopting individual leadership. Dual leadership with the supervisor (50%) dominates alongside participatory leadership at (50%) in the non-free private schools.

In the Nabatieh governorate, participatory leadership is the dominant model in the public sector at (75%), with individual leadership at (18.8%) and dual leadership with the supervisor at (6.3%). Participatory leadership is used only in free private schools at (50%), equally with individual leadership. In non-free private schools, dual leadership with the supervisor dominates at (90.9%), with no use of participatory leadership in this sector.

In the public sector in Akkar governorate, there is a focus on participatory leadership, which is the most used model at (57.7%), followed by (23.1%) of opinions that found there are

leadership based solely on the supervisor, followed by dual leadership with the supervisor at (15.4%), and finally, individual leadership recorded the lowest percentage at (3.8%).

Participatory leadership in free private schools in this governorate represents (33.3%), and dual leadership with the supervisor (66.7%), the two main leadership models. In non-free private schools, participatory leadership is the most commonly used model at (53.8%), followed by individual leadership at (30.8%), and dual leadership with the supervisor at (15.4%). In free private schools, both participatory leadership and dual leadership with the supervisor represent (50%) each. In non-free private schools, dual leadership with the supervisor dominates at (90.9%).

At the governorate level, in Baalbek-Hermel, dual leadership with the supervisor dominates in the public sector at (66.7%), with small percentages for participatory leadership (5.6%) and individual leadership (5.6%), and individual leadership based on the coordinator at (16.7%).

We conclude that participatory leadership is the most common model in both the public and private sectors across most governorates, especially in Beirut and the North, and that the "dual leadership with the supervisor" model is the most common in most governorates across both sectors.

Dual leadership with the supervisor is particularly evident in some governorates like Mount Lebanon (suburbs) and Baalbek-Hermel, as well as in non-free private schools in some governorates like the South and Bekaa. This trend reflects growth in structural and composite leadership.

Key Insights

From the analysis of the results of the four Questionnaires, it appears that participatory leadership is the most widespread model across most sectors and governorates, with both the non-free private sector and the public sector showing high percentages of this type of leadership, with distinct prominence in some governorates like Beirut, the South, and Nabatieh. Respondents agree that there is a noticeable variance in the percentages of participatory leadership between governorates, where Beirut and the South record high percentages, while governorates like Akkar and Baalbek-Hermel show lower percentages.

Individual leadership seems less prevalent compared to participatory leadership across all governorates and sectors, but it appears at notable rates in some governorates like Akkar and Baalbek-Hermel. Therefore, it is important to study the factors influencing the variation in leadership across governorates in order to develop appropriate strategies, provide training programs for principals to enhance their ability to adopt effective leadership models, and promote participatory leadership to improve school performance.

D. Effectiveness of School Management in Guiding and Supporting the Educational Team

Analysis of the Principal Questionnaire Results

The results show that most school principals in the public education sector believe they support and guide the educational team in a "very effective" or "somewhat effective" manner. For example,

in Beirut, (50%) of its schools rate their support effectiveness as "very effective," while in the South, it increases 80%). Governorates like Baalbek-Hermel show variation, with 9.1% classifying administrative effectiveness as "ineffective."

In the private free education sector, nearly all schools classify themselves as either "very effective" or "somewhat effective" in supporting and guiding the educational team in Beirut and the North, with 100% of schools in these areas rating themselves as "very effective," reflecting the professionalism of school principals in managing this sector in these governorates.

Meanwhile, the majority of principals in private non-free education consider themselves "very effective" in supporting and guiding the educational team, with percentages ranging from 66.7% across most governorates. However, there is a slight decline in governorates like Akkar, where the percentage is slightly lower.

UNRWA shows very positive results, with all principals rating their administrative role as "very effective" or "somewhat effective." In the South, the percentages are evenly split between high and medium effectiveness.

In Beirut, 66.7% of principals rate their effectiveness in supporting and guiding the educational team as "very effective," reflecting clear administrative stability. The percentage in Mount Lebanon (suburbs) is 63.3%, indicating relatively good performance. In the North, the percentage is high at 49.1% of principals rating themselves as "very effective," with 5.5% rating it as "needs improvement." Bekaa shows good performance with 56% rating their effectiveness as "very effective." The South demonstrates superiority with 68% rating their effectiveness as "very effective," while Nabatieh shows an equal percentage of high and medium effectiveness. In Akkar, a large percentage (60.7%) finds the effectiveness "ineffective" or "needs improvement," indicating a need for intervention to improve administrative performance. In Baalbek-Hermel, there is a balance between the different ratings, indicating variation in administrative performance among school principals, and necessitating work on training principals to improve their effectiveness in supporting and guiding the educational team.

We conclude that there is variation across educational sectors in terms of administrative effectiveness in guiding and supporting the educational team. Public education shows significant variation between governorates, while private free education stands out with consistent and positive performance. Private non-free education demonstrates efficiency in most governorates but may need improvement in certain areas like Akkar. Governorates such as the South and Beirut as positive examples of school administration effectiveness in supporting and guiding the educational team. In contrast, governorates like Akkar and Baalbek-Hermel require additional efforts to improve administrative performance and achieve effectiveness in support and guidance.

The results from private free education and UNRWA indicate a strong and stable model across nearly all governorates, reflecting high effectiveness in administration in terms of guiding and supporting the educational team.

The governorates of the South, North, and Bekaa are considered the best-performing in most sectors, especially in the private free education sector and UNRWA. The private free education

sector shows stability and high effectiveness in all governorates. In the public sector, however, there is significant variation in performance between governorates, with strong performance in the South and noticeable weaknesses in Akkar and Baalbek-Hermel.

Analysis of The Supervisor Questionnaire Results

According to the supervisors, there is significant variation between governorates in the public sector. The South and Nabatieh show high effectiveness in guiding and supporting the educational team, with rates of (56.3%) and (43.5%) classified as "very effective," respectively, compared to lower rates in Akkar (28.9%) and Bekaa (33.3%).

In the private free education sector, the North, Bekaa, and Baalbek-Hermel stand out with 100% of supervisors rating school management as "very effective", followed by Akkar at 75%. Nabatieh however shows some variation with 66.7% rating as "somewhat effective." The private non-free education sector shows the highest effectiveness in the South (85.7%) and Mount Lebanon (83.3%), while there is relatively low effectiveness in Bekaa, with only 28.6% of supervisors rating school management support as "very effective". UNRWA schools demonstrate consistent effectiveness, with 100% of supervisors rating school management as "very effective" across all governorates.

Key Insights

The data reveals significant variation in school management effectiveness between governorates. The South and Mount Lebanon (excluding the suburbs) perform well in the public sector, while Akkar and Bekaa require improvement. The private free education sector is generally rated positively, with minor variations in Nabatieh. The private non-free education sector achieves high ratings in most governorates, except for Bekaa, which needs improvement. UNRWA schools exhibit consistently high performance, reflecting a unified positive evaluation across all regions and a high level of administrative effectiveness compared to other sectors.

The supervisors' perspectives highlight that the private free education sector is the most effective in guiding and supporting the educational team, followed by the private non-free education sector, and then the public sector. The notable variation between governorates underscores the need for some regions to enhance administrative performance to achieve educational goals more effectively.

Analysis of the Coordinator Questionnaire Results

The general analysis of the coordinators' opinions shows significant variation in results regarding the effectiveness of administration in guiding and supporting the educational team across sectors and governorates. In the public sector, Beirut faces challenges in administrative effectiveness, with 44.4% of participants rating the administration as "very effective," but 33.3% indicating that it "needs improvement." In contrast, governorates like Mount Lebanon (suburban and non-suburban) and the North show good effectiveness, with a high percentage of participants rating the administration as "very effective" or "somewhat effective." In Bekaa and the South, there is a noticeable percentage of responses indicating "needs improvement," suggesting the need to develop these skills in principals to ensure the achievement of educational goals. In Nabatieh, Akkar, and Baalbek-Hermel, evaluations show variation between opinions.

In the private free education sector, the evaluation is extremely positive, with a high percentage of participants across all governorates rating the administration as "very effective," including Beirut, Mount Lebanon, the North, and Bekaa, reflecting high effectiveness in supporting the educational team. In the private non-free education sector, the evaluations vary between high effectiveness and the need for improvement, with Mount Lebanon, the North, and Bekaa showing high positive ratings of "very effective," while some governorates, like Beirut and Akkar, require improvement.

Overall, the analysis indicates that there is a variation in administrative effectiveness between the public and private sectors, with significant challenges in some governorates that need improvements to develop the performance of educational administration.

Analysis of Teacher Questionnaire Results

Mount Lebanon (excluding suburbs) in the public sector showed a high percentage for the statement "very effective" (57.3%), followed by the South (56.5%) for the same statement. The "needs improvement" results indicated that teachers in Baalbek-Hermel and Bekaa believe that the administration requires further improvement, with percentages of 19.5% and 20.4%, respectively. The South showed a relative lead at 56.6%, followed by Nabatieh and Akkar with equal percentages of 41.1%. The private free education sector leads in "effectively guiding and supporting the educational team" in Mount Lebanon (excluding suburbs) at 87.1% and Bekaa at 82.4%, reflecting clear effectiveness in this sector in rural and suburban governorates.

The governorates with high percentages for "needs improvement" were the South (70.0%) and Beirut (37.5%). The private non-free education sector shows the highest effectiveness in Beirut (64.4%) and Mount Lebanon suburbs (71.6%), with Baalbek-Hermel also showing a good percentage (58.3%).

The UNRWA sector recorded the highest "very effective" percentage, with the South at 60.0% and the North at 100%. The North was distinguished by the effectiveness of school principals in guiding and supporting the team across all sectors, reaching 72.5% in the private free sector.

E- Encouraging and Supporting the Educational Staff's Innovation

Analysis of the Principal Questionnaire Results

The results showed that principals in the public sector are characterized by effectively supporting and encouraging innovation in most governorates, with an overall percentage of 59.2%. The South recorded the highest percentage for administration that effectively encourages innovation, reaching 80.0%. Bekaa and Mount Lebanon (excluding suburbs) recorded 69.2% and 77.8%, respectively. Akkar recorded a lower percentage for effective innovation at 40.0%, with a good support percentage of 50%. It is concluded that the public sector shows a noticeable variation between governorates, with percentages ranging from 40.0% in Akkar to 80.0% in the South. The private non-free sector is the most stable, with an effective innovation support percentage of 77.6%. Some governorates' schools excelled in effectively encouraging innovation, with Baalbek-Hermel recording 100.0%, and the North recording 84.6%. Beirut recorded 88.9% for continuously

supporting innovation. Schools that effectively support innovation in the private free sector recorded 76.7%. Governorates that stood out include Beirut, Mount Lebanon (excluding suburbs), the South, and Bekaa, all recording 100.0% for supporting innovation effectively.

Analysis of the Questionnaire Results for Supervisors

The results showed that the North leads with 60.5% for "effective and continuous support" in public education, 72.2% in private non-free education, and 100% in private free education. Akkar showed a decline in public education (44.7%) with 18.4% for limited support for change and innovation processes, but showed progress in private non-free education (77.8%). Baalbek-Hermel excelled in all sectors, with 90.9% of schools providing effective support in private non-free education, followed by Beirut, which showed 100% for "effective support" in private free education and 66.7% in private non-free education. In the South, the percentages are close across sectors, with "effective support" ranging between 59.4% in the public sector, 71.4% in private non-free education, and 100% in private free education.

According to supervisors' data, we conclude that public education suffers from variation in supporting innovation across governorates, with the North and South leading, while Akkar, Baalbek, and Nabatieh lag behind. Free private education shows cohesion and stability in supporting innovation, with nearly 100% support. The non-free private education sector is balanced, with significant progress in Baalbek-Hermel and Akkar, but some decline in Mount Lebanon and the North. UNRWA schools are distinguished by continuous support for innovation in all governorates, with 100% support.

Analysis of the Questionnaire Results for Coordinators

In the public sector, 47.5% of coordinators responded that principals in the North support innovation continuously, followed by Beirut, where the administration encourages and directs innovation continuously at 33.3%, with 22.2% indicating a lack of focus on change and innovation. 23.7% of coordinators responded that school principals in public schools provide good guidance and support, while 45.0% of them see that principals support innovation continuously in Bekaa, with 35% offering good guidance.

In the private free sector, in Beirut, the administration continuously supports innovation at 100%. In Mount Lebanon's suburbs, 60% of administrations continuously support innovation. In the South, 40% of school administrations focus on supporting innovation, while 60% provide good guidance.

In the private non-free sector in Beirut, 66.7% of administrations support innovation continuously, while only 8.3% of principals provide limited support. In Mount Lebanon's suburbs, 71.7% of principals support innovation continuously, while 26.1% offer good support. In the South, 33.3% of administrations support innovation continuously, with 50% providing good support.

In UNRWA schools, administrations in the North focus entirely on innovation at 100%.

Key Insights

Leadership plays an important role in encouraging innovation and fostering a supportive educational environment for innovation. Innovation is a key part of developing educational and administrative performance. The free private sector shows remarkable performance in effectively supporting innovation across all governorates.

The non-free private sector and the UNRWA sector also demonstrate a high commitment to supporting innovation. Respondents point out that there are disparities between governorates in supporting innovation, with the South and North recording high percentages, while governorates such as Akkar and Baalbek-Hermel lag behind. The public sector shows medium to strong support in many governorates, with a clear variation between them. This may be due to the lack of a unified policy to address the absence of support and encouragement for innovation in schools in some governorates.

Hence, there is a need to generalize successful innovation support programs from the private sectors to the public sector, by encouraging the exchange of successful experiences between high-performing schools and low-performing schools to improve principals' performance.

Additionally, follow-up and evaluation mechanisms should be established to support innovation in schools located in rural governorates.

F. Involve the team in making important decisions in the school

Analysis of the Principal Questionnaire Results

The results indicated that the non-free private sector performs the best overall, with the highest rate of team participation in decision-making being "always and effectively" at 49.0%, compared to the other sectors. The free private sector ranked second, with "always and effectively" at 46.7%. The public sector showed lower performance compared to the other sectors, with "always and effectively" at only 40.8%. The UNRWA sector showed excellent performance, but it was limited to specific governorates with no significant variation. The public sector showed significant disparity between governorates, with "always and effectively" rates ranging from 25.0% in Beirut to 65.0% in Akkar. The non-free private sector also showed moderate variation between governorates such as Beirut (77.8%) and Bekaa (11.1%).

We conclude that the non-free private sector demonstrates a clear ability to involve the teaching team in important decision-making. The UNRWA sector provides consistent performance across all governorates. Meanwhile, the public sector experiences significant variation between governorates, reflecting inconsistency in school management policies. Some governorates, such as Bekaa in the non-free private sector, show a clear weakness in involving the teaching team in decision-making.

Analysis of the Supervisor Questionnaire Results

According to supervisors, the levels of involvement of the teaching team in decision-making vary across governorates in the public sector. In Beirut, 27.3% of administrations are always and effectively involved, while 36.4% are occasionally involved. In Mount Lebanon (suburbs), there

is a balance between effective participation and occasional participation, both at 29.4%. In Mount Lebanon (excluding suburbs), 43.5% of administrations are always and effectively involved. In the North, 44.7% of administrations are frequently involved, while 34.2% are always involved. In the South, 50% of administrations are always and effectively engaging others. In Nabatieh, 52.2% of administrations are frequently engaging others, and in Akkar, 44.7% of administrations are frequently engaging others. In Baalbek-Hermel, 47.1% of administrations are always and effectively engaging others.

The governorates with high participation include Mount Lebanon (excluding suburbs), the North, the South, and Baalbek-Hermel, while Beirut and Akkar exhibit limited participation. Therefore, there is a need to motivate Beirut and Akkar to increase effective participation, while the level of team involvement needs to be improved in Nabatieh and Mount Lebanon (suburbs).

In free private education, the results vary in terms of the level of team involvement in decision-making across governorates. In Beirut, all team members are often involved at 100%, while in Mount Lebanon (suburbs), 80% of the team is always and effectively involved, with 20% participating only occasionally.

In Mount Lebanon (excluding suburbs), there is a balance, with 50% of the team always involved, and the rest participating frequently. In the North, 80% of the administrations involve the team always and effectively, while 20% participate frequently. In Bekaa, 66.7% of the team is always and effectively involved, while in the South and Nabatieh, the team is involved 50% of the time, either frequently or occasionally. In Akkar and Baalbek-Hermel, the entire team is involved, with 100% always in Akkar and 100% frequently in Baalbek-Hermel.

The general conclusion shows that Beirut, Akkar, and the North achieve the highest levels of full team participation, while Mount Lebanon (suburbs), the South, and Nabatieh need improvement in the level of involvement, as there is variation in the participation of some members.

In non-free private education, the levels of team involvement in decision-making vary between governorates.

In Beirut, the highest rate is recorded for "always" at 44.4%, followed by "frequently" at 33.3%. In Mount Lebanon (suburbs), the rates are split between "frequently" at 37.5% and "always" at 34.4%. In Mount Lebanon (excluding suburbs), the highest rate is recorded for "always" at 50.0%, while "occasionally" was the lowest at 8.3%. In the North, the rates are equal for "always" and "frequently" at 44.4% each.

In Bekaa, the highest percentage is for "occasionally" at 50.0%, followed by "always" and "frequently" at 21.4% each. In the South, "always" recorded the highest percentage at 85.7%. In Nabatieh, the percentages for "frequently" and "occasionally" were equal at 40.0% each. In Akkar, the percentages for "occasionally" and "always" were equal at 44.4% each. In Baalbek-Hermel, "frequently" recorded the highest percentage at 54.5%.

The overall results indicate that urban governorates (Beirut and Mount Lebanon) show better rates compared to rural governorates, where the latter tend to participate "rarely" or "occasionally".

We conclude that urban governorates such as Beirut and Mount Lebanon achieve higher levels of involvement of the teaching team in decision-making compared to rural governorates like Akkar and the North. It is also noted that free private education and non-free private education show higher scores for continuous and effective participation compared to the public sector. Private education generally shows higher involvement, while the public sector requires further stimulation to improve teaching team participation, especially in governorates with limited participation.

Analysis of the Coordinator Questionnaire Results

In the public sector, most governorates show high levels of participation, especially in Beirut, the North, and Bekaa, where a large part of the team participates always or frequently in decision-making. Some governorates, such as Akkar and the South, show more variation in participation.

In the free private sector, almost all governorates, especially Beirut and Mount Lebanon, show high levels of participation, with a large part of the team being involved permanently. In the non-free private sector, most governorates show good participation, with a mix of continuous and occasional participation across the governorates. Beirut, Mount Lebanon, and the North show the strongest participation. The UNRWA sector in the North reported full team participation, highlighting a unique case in this sector.

Overall, it appears that governorates such as Beirut, Mount Lebanon, and the North generally show high levels of participation from the teaching team in decision-making, especially in the free private sector. Some governorates, such as Akkar and the South, show more varied levels of participation. The general trend across all sectors indicates a greater preference for integrating the teaching team and encouraging their participation in decision-making processes.

We conclude that the South stands out as the best governorate for involving the teaching team across all sectors, particularly in the public and free private sectors. There is relative weakness in the public sector, especially in Akkar and Baalbek-Hermel. The free and non-free private sectors perform more evenly, with both achieving high levels of participation, particularly in Beirut and Mount Lebanon. The UNRWA sector reports superior and stable performance across all governorates at 100%.

Key Insights

The performance of school principals in the free and non-free private sectors is the best in terms of involving the team in decision-making. Meanwhile, public school principals need to enhance their participatory management skills, particularly in governorates with lower performance. This can be done through ongoing training programs and follow-up and evaluation mechanisms to improve their skills and increase team involvement.

G. Leadership Competencies in School Management

Analysis of Principal Questionnaire Results

a. Change Management Competency

Regarding change management, the public sector shows a clear lead with a total of 55 schools distributed across various governorates, reflecting a strong response to the need for change and adaptation to challenges. The non-free private sector follows with a total of 50 schools, indicating a notable investment in enhancing administrative flexibility. The free private sector ranks third with a limited number of only 10 schools, which reflects constraints in resources or prioritization of other matters. UNRWA participates with only four schools, highlighting the limited focus on change management in this sector.

The data highlights the importance of the public sector in leading change management efforts, thanks to the support and available infrastructure. The non-free private sector demonstrates flexibility and investment but still falls short of the public sector's level. Both the free private sector and UNRWA appear to need additional support to improve their capabilities in this area.

In Beirut, the non-free private sector leads in change management with 6 schools, compared to only 2 in the public sector, reflecting a focus on dynamism in private education. In Mount Lebanon (suburbs), the non-free private sector clearly leads with 14 schools, while both the public sector and the free private sector are tied with 6 schools each. In Mount Lebanon (excluding suburbs), the public sector leads with 8 schools, highlighting its prominent role in rural governorates.

In the North, the public sector dominates with 15 schools, reflecting its strength in this governorate. In the Bekaa and the South, efforts are distributed between sectors, with the public sector recording 6 schools in the Bekaa and 5 schools in the South, while the non-free private sector has modest participation. In Nabatieh, there is a balance between the public and non-free private sectors, with 7 and 5 schools, respectively. In Akkar, the public sector records 6 schools, compared to only 4 for the non-free private sector. In Baalbek-Hermel, there is a complete absence of the public sector, with limited participation from the private sector.

Change management emerges as a crucial factor in enhancing the flexibility of the educational system, with the public sector leading due to its resources and capabilities. While the non-free private sector demonstrates clear investment, the free private sector and UNRWA require further support and focus to improve their performance in this area. The performance disparity across governorates points to the need for better resource distribution and attention to rural governorates.

2- Effective Communication Competency

Regarding effective communication, public schools account for the largest proportion with 102 schools, reflecting the public sector's commitment to enhancing communication among stakeholders in the educational process. Private non-free schools register 70 schools, which reflects notable efforts in this area compared to the free private schools, which account for only 19 schools. UNRWA schools record the lowest percentage with participation from only 4 schools. These figures reflect disparities in the focus on enhancing effective communication between different

educational sectors. The data shows that effective communication varies between governorates, with public schools clearly outperforming in almost all governorates, except for Mount Lebanon, where private non-free schools show strong performance. This highlights the gap between urban and rural governorates in terms of resources and infrastructure that support communication. The results reflect differences in attention to enhancing effective communication among educational sectors. Public schools lead the list due to their government and structural support, while free private schools suffer from resource constraints, limiting their ability to foster effective communication.

The data shows that effective communication varies between governorates, with public schools clearly outperforming in almost all governorates, except for Mount Lebanon, where private non-free schools show strong performance. This reflects the gap between urban and rural governorates in terms of resources and infrastructure that support communication.

3- Problem-Solving Competency

Regarding problem-solving competency, public sector managers lead with 111 schools out of a total of 224, indicating a strong focus on this aspect by public school administrators. The non-free private sector comes second with 84 schools, reflecting significant efforts in this area. The free private sector records only 25 schools, indicating significant challenges in this area. UNRWA contributes 4 schools, a limited number.

It is clear from the analysis that managers in the public sector are distinguished by their problem-solving skills in governorates, especially in the North and Mount Lebanon. The non-free private sector registers high percentages. In some governorates, such as Mount Lebanon suburbs, the private non-free sector faces challenges in rural governorates. Meanwhile, free private schools and UNRWA still show very limited involvement from managers in problem-solving, which requires additional support and training for the managers to develop problem-solving competency and strengthen their roles in this area. The public sector plays a leading role in enhancing problem-solving skills within schools.

4- Motivation and Support for the Educational Staff

Regarding motivation and support for the educational staff, the public sector stands out with high performance, as it represents 105 schools out of a total of 205, where their managers provide support and motivation to the educational staff. This reflects a notable focus on fostering a stimulating learning environment in public schools. The non-free private sector comes second with 77 schools, indicating the private sector's commitment to providing appropriate support for educational staff. The free private sector records only 19 schools, reflecting significant challenges in providing support and motivation in this type of school. Finally, UNRWA contributes only 4 schools, indicating the limited resources available in this sector.

The analysis shows that the public sector outperforms the other sectors in leading efforts to motivate and support the educational staff across all governorates, with noticeable variation in performance. The private non-free sector performs well in some governorates but still falls short in rural governorates. Free private schools and UNRWA require additional support and training to enhance their role in this area.

5- Planning and Organizing Competency

The public education sector leads in planning and organizing within its schools, with 97 schools, reflecting clear institutional efforts to improve administrative and organizational planning within public schools. The non-free private sector comes second with 73 schools, indicating There is a significant investment in planning, even though it is a private sector. The free private sector shows limited performance, with only 18 schools, while UNRWA schools record the lowest percentage, with 4 schools.

The data shows the public sector's superiority in planning and organizing, reflecting the commitment and responsibility in participatory management to achieve quality education. The non-free private sector shows relative excellence due to the available resources, while the free private sector continues to struggle with constraints that affect its ability to plan and organize. The results reflect variations in the ability of school managers to plan and organize across governorates, with the public sector leading in most governorates, except for Mount Lebanon. This indicates the need for other sectors to enhance their organizational and planning capabilities, especially in Baalbek-Hermel, while other governorates like Beirut and Mount Lebanon continue to see strong competition between sectors.

Analysis of the Supervisor Questionnaire Results

1- Problem-Solving Competency

The public sector records the highest number of responses in this area, with a total of 142 responses. The governorates that recorded the highest frequency were the South (25 responses), Akkar (24 responses), and the North (24 responses). The non-free private education sector recorded 87 responses, with notable frequency in Mount Lebanon (suburbs) (22 responses). The free private education sector recorded 22 responses, distributed moderately across several governorates. The UNRWA sector recorded 3 responses.

2- Effective Communication Competency

The public sector records the highest number of responses in this area, with a total of 126 responses. The governorates that recorded the highest frequency were the North (22 responses), Akkar (22 responses), and the South (21 responses). This is followed by the non-free private education sector, which recorded 80 responses, with a high frequency in Mount Lebanon (suburbs) (19 responses). Then comes the free private education sector with 19 responses, distributed across several governorates. The UNRWA sector recorded 3 responses.

3- Motivation and Support for the Educational Staff Competency

The public education sector recorded the highest number of responses in this area, with a total of 115 responses. The governorates with the highest frequency were the South (21 responses) and the North (19 responses). It was followed by the non-free private education sector, which recorded 79 responses in total, with higher frequency in Mount Lebanon (suburbs) (19 responses) and the North (13 responses). The free private education sector recorded 19 responses, which were distributed moderately across several governorates. UNRWA recorded 3 responses.

4- Planning and Organization Competency

The public sector recorded the largest number of responses in this area, with a total of 96 responses. The highest frequency was in the South (22 responses) and the North (17 responses). It was followed by the non-free private education sector with 70 responses, with high frequency in Mount Lebanon (suburbs) (17 responses). The free private education sector recorded 18 responses, with notable frequency in Beirut (3 responses). UNRWA recorded 3 responses.

5- Change Management Competency

The public sector recorded the highest number of responses in most governorates, totaling 46 responses, with the highest frequency in governorates like Akkar (9 responses) and Mount Lebanon excluding suburbs (8 responses). This was followed by the non-free private education sector, which recorded 37 responses in total, with the highest frequency in Mount Lebanon (suburbs), where 9 responses were recorded, while the number was lower in other governorates. The free private education sector recorded 10 responses, which were distributed among several governorates, including 3 responses in Mount Lebanon excluding suburbs. UNRWA recorded only one response in one governorate (Mount Lebanon suburbs).

Conclusion

We conclude that the public sector is most prominent in identifying the leadership competencies that characterize the school management in question, with the most important options being "problem-solving ability," "effective communication," and "motivation and support for the educational staff." We also conclude that non-free private education ranks second in terms of frequency in most options, with the most important options being "Problem-solving ability," "effective communication," and "motivation and support for the educational staff." The free private education sector recorded less presence in many options compared to other sectors, with the most important options being "problem-solving ability," "effective communication," and "motivation and support for the educational staff." The UNRWA sector recorded the fewest responses compared to other sectors, with the key options being "motivation and support for the educational staff," "planning and organization," "problem-solving ability," and "effective communication."

Analysis of Coordinator Questionnaire Results

In Beirut, the public education sector focuses on leadership competencies such as "effective communication" (33.3%) and "motivation and support for the educational staff" (11.1%). This distribution indicates a balance in the representation of different competencies, reflecting a diversity in leadership priorities. In the free private sector, there is no dominant competency, with competencies distributed equally (100%), indicating a general uniformity in leadership expectations. On the other hand, the non-free private sector focuses on competencies like "problem-solving" and "planning and organization" (18.2% each), highlighting the need for strategic abilities and problem analysis.

In Mount Lebanon (suburbs), the public education sector heavily emphasizes "motivation and support for the educational staff" (23.5%) and "planning and organization" (11.8%), signaling a clear interest in motivation and organization. In the free private sector, competencies are distributed equally (20% each), suggesting a similar unification as in Beirut. The non-free private sector focuses on "problem-solving" and "communication skills" (6.5% each), with a more diverse representation compared to the public sector.

In Mount Lebanon excluding suburbs, the public education sector focuses on "planning and organization" (17.9%) with a secondary role for motivational skills (10.3%). In the free private sector, the dominant competencies are "planning" and "problem-solving" (20% each), reflecting a priority for strategic planning. In the non-free private sector, the competency "problem-solving" is "Problem-solving" is the most prominent, with a percentage of (10.5%), reflecting the importance of facing challenges and managing change.

In the North Governorate, the public education sector focuses on "effective communication" (11.9%) and "problem-solving" (10.2%), reflecting an interest in communication and analytical skills. In the free private sector, there is an equal representation of competencies, each with a percentage of (25%), indicating a diversity in leadership priorities. In the non-free private sector, there is a focus on "problem-solving" and "planning" (9.7% each), highlighting the importance of strategic management.

In the Bekaa Governorate, "effective communication" and "planning and organization" are dominant competencies in the public education sector, with a percentage of (15%) each, reflecting a balanced focus on organizational and personal skills. In the free private sector, there is a clear emphasis on "planning and organization" at (50%), showing the importance of planning. In the non-free private sector, the distribution of competencies is relatively low across different areas, with a tendency toward planning and communication at (6.3%) each.

In the South, the public education sector focuses on "motivation and support" (16.7%) and "effective communication" (14.3%), highlighting the importance of personal leadership. The free private sector prioritizes "problem-solving" at (20%), reflecting a focus on strategic leadership. In the non-free private sector, competencies are distributed between "planning" and "problem-solving" at (16.7%), showing a mix of analytical and strategic leadership.

In Nabatieh, the public education sector focuses on "planning" and "problem-solving" at (12.5%) each, indicating a balance between structural and strategic competencies. In the free private sector, the focus is on "planning" and "problem-solving" at (50%), reflecting a priority for developing

strategic plans. In the non-free private sector The dominant competencies are "planning" and "problem-solving" at (27.3%), indicating a strong continuity in leadership priorities.

We conclude that the competency of "planning and organization" consistently appears as a core competency across governorates and sectors. On the other hand, "motivation and support" and "effective communication" dominate in the public sectors, reflecting a focus on personal relationships. In the free private sector, there is generally an even distribution, with no one competency standing out. In the non-free private sector, the focus leans more towards problem-solving and planning, with an emphasis on strategy and addressing issues. The differences highlight varying preferences, such as the focus on "planning and organization" in Bekaa versus the balanced focus in Akkar.

Analysis of Teacher Questionnaire Results

The results of the teacher questionnaire indicate that the ability to solve problems among school principals represents the highest percentage of individual competencies (11.6% within the public sector, 6.2% overall). Effective communication comes in second place, with (9.4%) within the sector and (5.0%) overall. The ability to motivate and support the educational staff forms (9.1%) within the sector and (4.9%) overall. Competencies like effective communication and motivation/support for the educational staff account for (6.0%), planning and organization (5.1%), and the combination of problem-solving and motivation/support for the educational staff (4.1%). The combination of problem-solving, planning, and organization represents (3.6%), and problem-solving, motivation, support for the educational staff, and planning and organization together make up (2.6%). Change management stands at (2.3%), while the combination of motivation/support for the educational staff and planning/organization accounts for (2.2%), and other skills did not exceed (2.0%).

Results from the public sector show that (11.6%) of principals possess leadership competencies in "problem-solving" along with "change management," followed by leadership competencies in "effective communication" and "motivation/support." Principals in both the free and non-free private sectors show similar preferences, with a significant percentage in "effective communication" and "motivation/support." Overall, principals in these sectors demonstrate a strong focus on these core leadership competencies. Most principals possess individual skills compared to shared ones. School principals in the North governorate stand out in problem-solving, effective communication, motivation and support for the educational staff, planning and organization, and change management, all at (100%).

In the free private sector, change management received (1.9%), indicating that few teachers consider principals to possess change management competency, and this does not constitute a significant portion of the total. Meanwhile, motivation and support for the educational staff scored (3.3%), showing that a moderate proportion of teachers believe principals have this competency. No responses indicated that principals possess change management competency. The combination of motivation/support for the educational staff and planning/organization recorded (2.9%) of teachers in the sector who believe principals have this competency.

Demonstrated proficiency in planning and organizational competency was possessed by (4.8%) of teachers. (6.7%) of teachers believe principals possess effective communication competency.

Mixed Competencies (Effective Communication + Motivation and Support + Change Management)

The percentages indicate that these competencies are either not present in principals or are present in very low proportions, meaning principals do not combine more than one competency at the same time, such as change management with motivation and support or planning and organization. Results from various governorates show diverse interests, but there is a common focus on improving "problem-solving ability," "effective communication," and "motivation and support for the educational staff." There is also noticeable interest in certain governorates in "change management" and "planning and organization," suggesting a pursuit of continuous improvement and adaptation to educational challenges.

Regarding effective communication competency, (6.6%) of teachers in the non-free private sector believe principals possess this competency, making it the most common competency among principals. As for planning and organization, (4.7%) of teachers within the sector believe principals have it.

As for the principals' ability to motivate the educational staff, it stands at (4.5%), reflecting teachers' desire to receive adequate support and motivation to improve their professional performance. The percentage of teachers who responded that principals possess change management competency is (1.8%), making this the least frequent competency both on its own and when combined with other competencies. The combination of effective communication, motivation and support, and planning and organization constitutes (2.9%) of teachers' responses within the sector, while change management with all other competencies represents only (0.2%) of the total according to them.

We conclude that the most common competency in these data, according to teachers' opinions, is the principal's ability to communicate effectively (6.6%), followed by motivation and support for the educational staff (4.5%), and then planning and organization (4.7%). The combination of effective communication and motivation and support constitutes (4.5%), which may suggest that many teachers believe support and motivation are strongly tied to good communication. In the public sector, (11.6%) of principals possess leadership competencies in "problem-solving" combined with "change management," followed by leadership competencies in "effective communication" and "motivation and support."

Teachers in both the free and non-free private sectors show similar preferences, with a significant percentage indicating "effective communication" and "motivation and support."

We also conclude that high-performing governorates (Akkar, Mount Lebanon, Nabatiyeh) require strengthening current leadership practices and promoting them as model practices. In medium-performing governorates (Beirut, North, Bekaa), change management should be improved, and integrated competencies should be enhanced. As for the balanced-performing governorates

(Baalbek-Hermel, South), additional support should be provided to enable effective leadership under challenging circumstances.

Key Insights

The competency of problem-solving is notably present in principals in both the public and non-free private sectors. It is one of the most important competencies emphasized across all governorates. Effective communication also appears as a fundamental element in enhancing the educational process in all sectors.

The competencies of effective communication, motivation and support for the educational staff, and planning and organization are of great importance to principals, supervisors, and teachers. However, they are not always implemented in some rural schools. The competency of motivating and supporting the educational staff is considered one of the key competencies to enhance a positive educational environment, and it is emphasized in both the public and non-free private sectors. It is less prominent in the free private sector and UNRWA. Planning and organization stand out as an essential and significant element for effective management in all sectors. This competency is best applied in the public sector compared to the other sectors.

The core leadership competencies of problem-solving, effective communication, motivation and support, planning and organization, and change management appear variably among principals, supervisors, and teachers depending on the educational sectors and governorates. The public sector leads in most competencies, while other sectors face challenges that require the provision of resources and training for principals to improve their performance. The free private sector and UNRWA require additional support to develop leadership skills. Meanwhile, the public sector focuses on personal relationships such as motivation and communication, and the non-free private sector tends to focus on problem-solving and strategic planning. The free private sector shows a balance without a clear focus on any area. Both the public and non-free private sectors face challenges in developing leadership skills among school principals, particularly in rural governorates.

The percentages of shared competencies show a significant decrease when combining skills, reflecting the low number of principals who combine more than one skill, such as motivation and support with planning and organization or change management (only 0.1%) within the sector, and effective communication with planning and organization and change management at (0.1%).

H. Areas That Need Development in Management

Analysis of Principal Questionnaire Results

There is a clear need to develop the competency of "decision-making" among principals in 26 public schools, highlighting the necessity to strengthen this sector by empowering principals and enhancing the administrative process in terms of decision-making. The private non-subsidized sector ranks second, with 21 schools demonstrating this need, while the private subsidized sector

shows limited demand, with only 8 schools. This indicates the importance of working on developing decision-making skills among principals across the public and private (subsidized and non-subsidized) sectors in most governorates. The greatest need for this competency is observed among school principals in Mount Lebanon (suburbs), as well as in Akkar and Baalbek-Hermel, where intensified efforts are required to train principals in decision-making, given its significant impact on educational management.

The need to enhance the competency of "innovation in educational practices" is evident in 83 public schools, followed by the private non-subsidized sector with 49 schools, and the private subsidized sector with only 19 schools. This need is particularly concentrated in public schools, especially in Beirut and the North. Bekaa and Baalbek-Hermel also require additional support to improve principals' innovation skills, while the private subsidized and non-subsidized sectors also necessitate support and training to ensure balance and quality in education.

The competency of "strategic planning" is needed in 60 public schools, reflecting the principals' awareness of its importance and its impact on effective school management. This indicates a pressing need for strategic planning training for public school principals across all governorates, underscoring an institutional commitment to sustainability and improving educational processes. Additionally, 31 private non-subsidized school principals and 11 private subsidized school principals expressed the need for efforts to enhance this competency and enable them to develop strategic plans for their schools. This competency is fundamental for successful educational leadership.

In the area of "communication with stakeholders," 39 public school principals expressed a need for improvement, indicating their awareness of the significance of stakeholder communication and its impact on educational management effectiveness. In the private non-subsidized sector, 29 principals highlighted the need to enhance communication competencies, followed by only 7 principals in the private subsidized sector. This reflects an acknowledgment of the importance of this area in fostering effective educational management, necessitating the organization of training workshops to meet these needs.

Regarding "partnership building," principals in the private non-subsidized sector ranked highest in expressing the need to strengthen this competency, with 44 principals indicating such a requirement. This demonstrates their awareness of the critical role partnerships play in advancing schools in all aspects. The public sector ranked second, with 38 schools expressing a need to develop partnership-building competencies in certain governorates. The private subsidized sector showed limited demand, with only 6 schools indicating this need. This highlights the need to strengthen the role of principals in building partnerships, revealing a clear disparity between governorates and educational sectors. The private non-subsidized sector demonstrated the greatest need in Beirut and Mount Lebanon (suburbs), while the public sector showed a greater need in the North, Bekaa, and Akkar. This necessitates empowering and supporting principals in these governorates to improve partnership-building efforts.

Analysis of the Supervisor Questionnaire Results

Innovation in Educational Practices (174 Responses)

The public sector recorded the highest number of responses, with a total of 109 repetitions. The highest repetitions were in Akkar (23) and the North (21), while Beirut (6) and Baalbek-Hermel (8) recorded the lowest repetitions, reflecting the growing need for innovation in this sector. In the private non-free sector, the fewest responses were recorded, with 49 repetitions. The highest repetitions

Strategic Planning (118 Responses)

The public sector recorded high responses in most governorates, with a total of 78 repetitions. The highest repetitions were in Akkar (15) and the North (12). Beirut recorded the lowest repetitions (5), indicating the importance of developing this area in the public sector. The private non-free sector recorded the fewest responses, with 28 repetitions. The highest repetitions for this area were in Mount Lebanon (suburbs) (6) and the North (5). The private free sector recorded fewer responses in this area (12).

Building Partnerships (113 Responses)

The public sector recorded fewer responses compared to the previous areas in most governorates, with a total of 58 repetitions. The highest repetitions were in Akkar (11) and Mount Lebanon, excluding the suburbs (9). Beirut (2) and Baalbek-Hermel (1) recorded the lowest repetitions. The private non-free sector showed significant presence in some governorates, with a total of 42 repetitions. The highest repetitions for this area were in Bekaa (7) and the North (7), while UNRWA recorded two responses.

Communication with Stakeholders (105 Responses)

The public sector recorded the highest number of responses in all governorates, with 71 responses. The highest repetitions were in Akkar (14) and Nabatieh (12). Beirut (3) and Mount Lebanon (suburbs) (2) recorded the lowest repetitions, reflecting the importance of this area in the public sector. The private non-free sector recorded responses in many governorates, totaling 28 responses. The highest repetitions for this area were in Mount Lebanon (suburbs) (9) and Bekaa (5). The private free sector recorded very limited responses (5).

Decision-Making (63 Responses)

In the public sector, the highest number of responses was recorded across all governorates, with 31 responses. The highest repetitions were in Baalbek-Hermel (6), Akkar (6), and the South (5). Beirut (2), Bekaa (2), and the North (1) recorded the lowest repetitions. The public sector had a higher presence in most governorates compared to others. The private non-free sector recorded a total of 26 responses. The highest repetitions for this area were in Mount Lebanon (suburbs) (7) and Bekaa (5). The lowest repetitions were in Nabatieh (0) and the North (1). The private free sector recorded only 6 responses across most governorates.

Conclusion from the Responses of Supervisors

It is evident that the public sector urgently needs to develop leadership competencies among school principals across all areas. The highest number of responses was recorded in the areas of "innovation in educational practices," "strategic planning," and "communication with stakeholders." The private non-free sector showed notable responses in most competencies, especially in "innovation in educational practices" and "strategic planning." The private free sector was the least present in most areas, but the most important areas were "innovation in educational practices" and "strategic planning." The key responses from UNRWA were "building partnerships," "innovation in educational practices," and "communication with stakeholders."

The need for the public sector to develop leadership competencies among school principals across all areas was highlighted, with the largest number of responses in the areas of "innovation in educational practices," "strategic planning," and "communication with stakeholders." The private non-free sector showed significant responses in most areas, particularly in "innovation in educational practices" and "strategic planning." The private free sector had the least presence in most areas, but the most significant areas were "innovation in educational practices" and "strategic planning." The most important responses from UNRWA were "building partnerships," "innovation in educational practices," and "communication with stakeholders."

Analysis of the Coordinator Questionnaire Results

In public schools, the need to develop competencies in communication with stakeholders (24%-27%) and strategic planning (~20%) emerged as priorities in most governorates. Partnerships and innovation were secondary focus areas. In private non-free schools, the need for strategic planning and innovation was repeated. In free private schools, the focus was on communication with stakeholders.

In Beirut, the data indicated that public schools needed to improve internet connectivity by 11.1%, strategic planning by 22.2%, and building partnerships by 33.3%. The primary focus was on building partnerships, reflecting a gap in cooperation. Free private schools did not specify detailed needs, but all needs were categorized under "other needs." In private non-free schools, the focus was on leadership decision-making (8.3%) and building partnerships (25.0%).

In Mount Lebanon (suburbs), public schools' needs for strategic planning were 14.7%, and building partnerships was 10.3%. In private non-free schools, leadership and technology needs were highlighted at 15.2%, with partnerships and innovation at 13.0%. In other governorates, public schools focused on strategic planning at 27.0%, while private non-free schools focused on strategic planning at 21.1%.

In the North, public schools needed to improve communication with stakeholders at 24.0%, while free private schools focused on this area at 50.0%. Private non-free schools focused on strategic planning and partnerships at 22.6%. In the Bekaa, the need to engage stakeholders was 23.7% in public schools, while private non-free schools focused on strategic planning at 25.0% and partnerships at 18.8%.

In the South, public schools showed a need for communication with stakeholders at 24.5%, while private non-free schools focused on leadership and partnerships at 33.3%. In Nabatieh, public schools focused on stakeholder engagement at 27.6%, while private non-free schools needed partnerships at 18.2%.

In Akkar, public schools showed a need for stakeholder engagement at 16.7%, while private non-free schools focused on innovation and partnerships at 15.4%. In Baalbek-Hermel, public schools focused on stakeholder engagement at 27.8%, while private non-free schools focused on partnerships and innovation at 27.3%.

These data highlight the importance of strategic planning, partnerships, and innovation as priorities for developing school management in various governorates. It also shows that communication with stakeholders (24%-27%) and strategic planning (~20%) are priorities in most governorates, with partnerships and innovation as secondary focus areas.

Analysis of Teacher Questionnaire Results

The total number of teachers in the public sector is 1,017, but the percentage of total responses that are compiled reaches only 53.5%, which may indicate unclear or undefined responses from other participants.

We conclude that the public sector places significant emphasis on developing areas such as "decision-making" and "strategic planning," which constitute about 27.2% of total responses. In both free and non-free private sectors, there was also a need to develop competencies in "strategic planning" and "innovation in educational practices." It is worth noting that "decision-making" is the most frequently mentioned area individually, cited by 46 teachers. The answer containing both "decision-making" and "strategic planning" came second, with 9 teachers. Based on these results, it can be concluded that most teachers in the public sector prioritize "decision-making" as their primary focus, with limited attention given to integrating innovative practices and strategic planning.

In the free private education sector, strategic planning was highlighted by 19 teachers. This indicates that strategic planning is considered a significant part of improving school performance and is integrated with decision-making in several schools. In the non-free private sector, decision-making was selected by 3 teachers. Although this number is small, it suggests that some teachers view decision-making as an essential element in improving the educational process. The combination of "decision-making and strategic planning" was chosen by 6 teachers (0.9% of the sector and 0.3% of the total). This demonstrates an interest in strengthening strategic planning within decision-making processes to enhance school performance.

Additionally, "decision-making and stakeholder communication" was selected by 6 teachers. This reflects that some teachers emphasize the importance of communicating with stakeholders (such as teachers, parents, or the local community) in decision-making. UNRWA school results indicated no selections for any of the categories, with a total of only 12 participating teachers, representing 100% of the specific sector but only 0.6% of the total.

"Strategic planning and decision-making" remain fundamental elements for many teachers, reflecting a trend toward improving administrative and educational approaches in schools. There is, however, minimal interest in innovation in educational practices, which may be an area requiring further development and attention from schools. The majority of teachers focus on "decision-making" as a priority, with some interest in integrating innovative practices and strategic planning.

Key Insights

The focus has been on improving the decision-making process in many schools, either separately or alongside strategic planning. This demonstrates significant interest in enhancing administrative and educational decisions. Additionally, strategic planning and stakeholder communication remain key competencies, although they require further development.

Innovation in educational practices remains a low priority or is not integrated with other factors. It is evident that innovation in educational practices does not receive as much attention as elements like strategic planning or decision-making. This highlights the need for greater focus on fostering innovation in educational environments.

I- Evaluation and Follow-Up – Classroom Visits

Analysis of Principal Questionnaire Results

The public sector showed varied distribution across governorates in terms of principals conducting regular classroom visits to monitor the educational process and support teachers. These efforts highlight the importance of direct engagement in improving educational outcomes.

Commitment to "always" (20%) and "often" (65%) in Akkar is very low, while the Bekaa region has the highest rate of "always" commitment at (76.9%), followed by the South at (66.7%).

The private free sector demonstrates high performance, with principals conducting classroom visits regularly at a rate of (100%) in several governorates such as Beirut, the Bekaa, and the South. The best-performing governorates for these visits are Beirut, the Bekaa, and the South, where "always" commitment reaches (100%). The lowest results were observed in Baalbek-Hermel, with an equal distribution among "always," "often," and "sometimes" at (33.3%) each.

The private non-free sector also shows a high level of commitment, with the North (84.6%) and the South (57.1%) leading in "always" conducting regular classroom visits (the best results). However, in the Bekaa, the percentage of principals conducting visits "always" drops to just (55.6%).

In the UNRWA sector, all governorates exhibit very high levels of commitment, with (100%) "always" in Mount Lebanon suburbs and the North. This percentage decreases in the South, where (50%) of principals conduct classroom visits "always" and the other (50%) do so "often."

Conclusions

Principals in the private free sector show the highest level of commitment to conducting classroom visits "always" across most governorates.

Public sector principals demonstrate good commitment in governorates such as the Bekaa and the South.

However, the public sector faces inconsistencies between governorates, particularly in Akkar and the North.

The private non-free sector needs to enhance classroom visits in governorates like the Bekaa.

Analysis of Supervisor Questionnaire Results

In public education, data reveals that 42.4% of school supervisors report that classroom visits "always" occur, while 33.6% state they happen "often." Regions such as Beirut and Mount Lebanon show higher levels of administrative support compared to rural areas like Baalbek-Hermel, where 11.8% describe visits as occurring "rarely."

In free private education, the majority of supervisors (71%) state that classroom visits "always" occur. This trend varies across governorates, with the North, Bekaa, Akkar, and Baalbek-Hermel achieving 100% for "always," while the South shows a split between "always" and "often."

In non-free private education, most responses (66.7%) indicate that supervisors believe classroom visits "always" take place. However, there is significant variation in Nabatieh, where only 20% report "always," compared to 85.7% in the South.

For UNRWA schools, results indicate that 33.3% of supervisors observe visits "often," while 66.7% state they occur "always."

At the governorate level, Beirut consistently records high percentages for "always" across all sectors, reflecting effective managerial oversight and follow-up in ensuring the proper execution of the teaching and learning processes through classroom visits. In Mount Lebanon, discrepancies were observed between suburban areas (47.1% "always") and non-suburban areas (30.4% "always"), highlighting the need to strengthen monitoring and evaluation mechanisms in the latter. Schools in the North demonstrated a strong consensus on consistent visits in free private schools (100%) and public schools (86.9% "always" or "often"). In Bekaa, variations were noted, with 38.9% reporting "always" in public schools, compared to 100% in free private schools and 71.4% in non-free private schools. The South showed close percentages between "always" (43.8% in public schools and 50% in free private schools) and "often" (40.6% in public schools and 50% in free private schools), indicating solid supervision and follow-up.

In Baalbek-Hermel, notable discrepancies were observed, with 41.2% "always" in public schools, 100% in free private schools, and 81.8% in non-free private schools, alongside a significant "rarely" percentage in public schools (11.8%). Variations were also recorded in Nabatieh, with 42.1% "always" in public schools, 100% in free private schools, and 66.7% in non-free private

schools. UNRWA schools in the South reported 100% for "always," with variations in Mount Lebanon (50% "always" and 50% "often").

Key Insights

The free private education sector demonstrates a high level of supervision and evaluation across all governorates, followed by the private non-free sector, with the public sector showing variation based on the governorate. Central governorates displayed greater consistency compared to peripheral ones, indicating the need to enhance follow-up and evaluation mechanisms in schools in those areas to improve education quality. For management to be effective, it must rely on a flexible system to monitor teacher performance and improve education quality and outcomes. Comprehensive, integrated, and continuous teacher development should be prioritized through supervising their performance, identifying their needs, and helping them develop their skills.

J- Providing Feedback and Recommendations Based on Evaluations

Analysis of Principal Questionnaire Results

The overall performance of schools in the public sector in providing feedback and recommendations to teachers after evaluations leans toward "Always" at 49.7% and "Often" at 43.5%. While the public sector demonstrates relatively balanced performance, it shows variation between governorates.

In the free private sector, overall school performance leans toward "Always" at 56.7% and "Often" at 43.3%. This sector exhibits high consistency in performance across most governorates, with some exceptions.

In the non-free private sector, school performance leads with "Always" at 72.4% and "Often" at 26.5%, indicating relatively outstanding performance with less variation between governorates. In the UNRWA sector, performance is concentrated mainly on "Always" at 75.0%, with minimal variation between governorates.

The best-performing governorates in the public sector for providing feedback and recommendations based on teacher evaluations are Bekaa and South, with high "Always" rates of 76.9% and 73.3%, respectively. Akkar follows with a high "Often" rate of 70%, compared to an "Always" rate of 30%. Performance in "Always" ranges between 30.0% in Akkar and 76.9% in Bekaa, highlighting significant variation in commitment to providing feedback and recommendations.

In the free private sector, the best-performing governorates are South and Akkar, where "Always" reached 100%, followed by Nabatiyeh, where "Often" was high at 66.7% compared to "Always" at 33.3%.

In the non-free private sector, the top-performing governorates are Bekaa and South, with very high "Always" rates of 88.9% and 85.7%, respectively, followed by Beirut with 66.7% for "Always."

In the UNRWA sector, the top-performing governorates are Mount Lebanon (suburbs) and North, both with "Always" at 100%, followed by South, where "Always" decreased to 50%, with an equal percentage for "Often."

Analysis of Supervisor Questionnaire Results

In public education, the overall average of supervisors' responses indicates that school administrations "often" provide feedback and recommendations at a rate of 38.7% and "always" at 43.8%. This reflects a positive trend in most governorates, with evaluations being regularly monitored. A very small percentage (1.4%) indicates that this practice "never" occurs, and only 2.3% report it happens "rarely," suggesting that the issue of complete absence of this practice is very limited.

In free private education, the overall data from supervisors shows that 77.4% of school administrations "always" provide feedback and recommendations, while 16.1% do so "often," and only 6.5% state it happens "sometimes." No responses indicated that the practice "never" occurs.

In non-free private education, data from supervisors reveals that 74.4% of administrations "always" provide feedback and recommendations, 23.9% do so "often," and only 1.7% say it happens "sometimes," with no instances of "never" reported. These percentages reflect a strong performance in the non-free private education sector, where feedback is consistently implemented. Meanwhile, UNRWA schools stand out with a remarkable 100% response rate for "always" across all centers.

At the governorate level, Beirut recorded the highest percentage for "sometimes" (54.5%) in public schools. In free private schools, 100% responded with "often," while in non-free private schools, 77.8% responded with "always." Schools in suburban Mount Lebanon demonstrated a balanced performance between "often" (41.2%) and "always" (35.3%) in public schools, with a near absence of "rarely" and "never." In free private schools, 80% responded with "always," while 81.3% of non-free private schools did the same.

In the North, the highest response rate was for "always" (83.3%) in non-free private schools, 80% in free private schools, and 52.6% in public schools, with slight variations in other categories. Schools in Bekaa showed exemplary commitment across all sectors, with 100% responding "always" in free private schools, 57.1% in non-free private schools, and 50% in public schools.

Schools in the South and Nabatieh excelled in providing consistent feedback, with 85.7% "always" in non-free private schools, 100% "always" in free private schools, 66.7% "always" in Nabatieh's free private schools, and 60% "always" in non-free private schools. Percentages declined slightly in Akkar and Baalbek-Hermel, where "often" and "always" dominated, while 2.6% and 5.9% reported "never" in public schools.

The public education sector shows stable performance in providing feedback and recommendations to teachers based on evaluations. The free private education sector demonstrates higher commitment, particularly in Baalbek-Hermel, Bekaa, and the South. Additionally, the free

private education sector achieves a good balance between "often" and "always" across various governorates.

Analysis of Coordinator Questionnaire Results

In the public sector, observations and recommendations for teachers in Nabatieh are provided "always" by 56.3%, in Bekaa by 30% "always," and in the South by 40.5% "always." Beirut and the suburbs of Mount Lebanon show lower levels of consistency, with higher rates in "rarely" (55.6% and 35.3%, respectively).

In the free private sector, schools excel in most governorates, with most regions showing a percentage of 100% in "always" or "mostly" and "always." There are slight differences, such as in Akkar (33.3% "mostly"), indicating room for improvement.

In the non-fee-paying private sector, performance is consistent across all governorates, with a "always" rate exceeding 50% in most regions, especially in Bekaa (75%) and Mount Lebanon (63.2%). Some governorates like the South (33.3% "always") show moderate levels compared to other regions. UNRWA schools display excellent performance in the North with 100% in "always," though data representation is limited.

We conclude that free private sectors achieve high rates of providing feedback consistently, with rates reaching up to 75.9%. UNRWA schools maintain a "always" rate of 100%. Rural governorates like Bekaa and Akkar consistently achieve good rates in "mostly" and "always," ranking among the top-performing sectors with consistently high rates in "always." The public education sector, however, needs to improve in providing evaluations and recommendations to teachers, particularly in Beirut and suburban Mount Lebanon. Governorates like Nabatieh, Bekaa, and Baalbek-Hermel demonstrate effective administrative practices across different sectors, serving as models for best practices.

"Mostly" and "always" categories prevail across all sectors, indicating the general commitment of schools to providing observations and recommendations to teachers. However, there are still some variations in the public education sector between different governorates.

Key Insights:

Free Private Sector: Achieves high percentages for consistently providing feedback, with "Always" reaching up to 75.9%.

UNRWA Schools: Achieve 100% in "Always."

Rural Governorates: Bekaa and Akkar show good results in "Often" and "Always," with consistently high performance.

Public Sector: Needs improvement in delivering evaluations and recommendations, particularly in less consistent regions such as Beirut and Mount Lebanon. In Beirut and Mount Lebanon (suburbs), Nabatiyeh, Bekaa, and Baalbek-Hermel demonstrate effective administrative practices across sectors, making them models to emulate.

The categories "Often" and "Always" dominate across all sectors, indicating a general commitment by schools to provide feedback and recommendations to teachers. However, some disparities remain in the public education sector between different governorates.

Analysis of Teacher Questionnaire Results

The results from the public sector indicate that most governorates have a high percentage of positive responses ("mostly" and "always"), suggesting that school principals are performing well in providing recommendations based on teacher evaluations. At the governorate level, the best-performing schools in providing feedback and recommendations based on evaluations are the South (92.7%), Mount Lebanon (excluding suburbs) (85.4%), and Akkar (87.4%). The governorate needing the most improvement is Baalbek-Hermel, which shows a relatively higher percentage of negative responses ("rarely" and "never" at 6.5%) compared to other governorates.

Despite the overall positive performance, there is a clear disparity between governorates, which may be linked to a lack of preparation or training for principals in providing such support and guidance.

In the non-fee-paying private sector, the governorates that achieved high rates of feedback and recommendations from management after teacher evaluations are: Suburban Mount Lebanon, Beirut, and the North, with the highest percentages of "mostly" and "always" responses (over 90%). Additionally, regions such as Mount Lebanon (excluding suburbs), Bekaa, and the South also show significant interest (percentages above 90% in the higher categories). However, Nabatieh and Akkar show more variation in percentages, with some responses falling under "rarely" or "sometimes."

The best-performing governorates are the South (92.7%), Mount Lebanon (excluding suburbs) (85.4%), and Akkar (87.4%), which stand out in providing recommendations consistently. On the other hand, governorates like Baalbek-Hermel have relatively higher percentages of negative responses ("rarely" and "never" at 6.5%) compared to others. The variation between governorates, despite the overall positive performance, could be linked to administrative resources or local challenges.

In the free private sector, teacher responses to this question are distributed as follows: Always (68.4%), Mostly (24.4%), Sometimes (7.2%), Rarely and Never (0%). These overall results indicate that the free private sector performs exceptionally well, with a very high percentage of positive responses (92.8%). However, there is room for improvement in some governorates that recorded lower percentages in providing feedback and recommendations to teachers after evaluations.

We conclude that most governorates have a high percentage of positive responses ("mostly" and "always"), reflecting good performance by educational management in both public and free private sectors in providing recommendations based on teacher evaluations.

K- Implementing Support Programs for Struggling Students:

Analysis of Principal Questionnaire Results

In the public sector, the overall performance tends to be "Often" at 32.7% and "Always" at 25.9%. The sector shows average performance with clear variation between governorates. In the private free sector, principals' performance tends toward "Always" at 46.7% and "Often" at 36.7%, with slight variation between governorates. The non-free private sector stands out with principals applying support programs for struggling students at a high rate, with "Always" at 57.1% and "Often" at 25.5%. In the UNRWA sector, performance is evenly split between "Often" and "Always," at 50.0% each.

The best schools providing support programs for struggling students in the public sector are in the South governorate (40.0% "Always") and the Beqaa (38.5% "Always"). The weakest performance was in Mount Lebanon (suburbs) (27.3% "Always," 18.2% "Never") and Akkar (60.0% "Often"), with no recorded "Always." The variation in "Always" ranges from 0% in Akkar to 40.0% in the South. In the private free sector, the best results were in the South and Mount Lebanon (excluding the suburbs), where "Always" was recorded at 100%. The lowest was in Nabatieh, with 33.3% for "Always" and 50.0% for "Often." The variation in "Always" ranged from 33.3% in Nabatieh to 100% in the South and Mount Lebanon.

In the non-free private sector, the best schools applying support programs for struggling students are found in the South (71.4% "Always") and the North (53.8% "Always"). The weakest performance in this sector is in Beirut (55.6% "Always"), with high percentages in other categories. The variation in "Always" ranged from 55.6% in Beirut to 71.4% in the South.

In UNRWA schools, the best performance between governorates was in Mount Lebanon (suburbs) and the North, where "Always" was recorded at 100%. The variation in "Always" ranged from 50% in the South to 100% in Mount Lebanon and the North.

Comparison Between Sectors:

The best performance by principals in supporting struggling students is in the non-free private sector, where it recorded the highest percentage for "Always" (57.1%) with clear stability. The sector with the most variation is the public sector, where performance percentages vary significantly between governorates. The weakest performance is in the public sector, which recorded the lowest "Always" percentage (25.9%) compared to the other sectors.

Analysis of the Supervisor Questionnaire Results

According to the overall data for supervisors in the public sector, 16.6% of school principals do not implement support programs for struggling students at all, while 7.8% of administrations do so "rarely." Meanwhile, 26.7% of school principals implement support programs "sometimes," while 31.3% of schools implement support programs "often," which is the highest percentage among the different categories. 17.5% recorded consistent "Always" implementation. This distribution shows that most schools, at 31.3%, respond to the implementation of school support programs, despite notable variation in implementation across governorates.

In the free private sector, the overall percentages for supervisors across the different categories show that 6.5% of schools implement the program "rarely" (category "Rarely"), while the same percentage (6.5%) falls under the "Sometimes" category. 29% of schools implement the program "often," while the highest percentage is from the "Always" category, at 58.1%, reflecting a good to strong response across the sector. Additionally, 100% of schools in some governorates show implementation of the program in the "Often" or "Always" categories, indicating full commitment to implementing support programs in these governorates.

In the non-free private sector, the largest percentage of schools falls in the "Always" category (56.4%), implementing support programs for struggling students, followed by the "Often" category (29.9%), reflecting increasing commitment across various governorates. Meanwhile, the "Never" and "Rarely" categories show lower percentages, with 2.6% and 1.7%, respectively, indicating that few administrations either do not implement the program or implement it rarely. All UNRWA schools across different governorates show strong commitment to implementing the program, with commitment rates reaching 100% in all governorates, reflecting superior commitment compared to the other sectors.

We conclude that there is a clear variation between sectors and governorates in the implementation of support programs for struggling students. Some governorates and sectors show full commitment, while others exhibit inconsistent implementation. Free private schools in Beirut, Mount Lebanon (both suburbs and non-suburbs), the South, and Baalbek-Hermel show full commitment to implementing the school support program. In contrast, schools in the North, Bekaa, Beirut, and Akkar show a need for consistent implementation of support programs for struggling students to achieve "Always" in all schools.

Analysis of the Coordinator Questionnaire Results

According to the coordinators' opinions, the public education sector suffers from significant disparities, as only a small percentage of school principals (20.3%) consistently implement the school support program. The free private sector shows an average to good performance, with 51.7% implementing the program "often." The non-free private sector excels with a strong performance, as 44.2% of school principals consistently implement the support program for struggling students. The UNRWA sector achieves ideal commitment, with 100% of schools implementing the program "Always."

The results of the implementation of the school support program for struggling students show a clear variation between sectors and governorates. This performance gap between governorates indicates the influence of local and administrative factors.

Performance varies between sectors based on the Questionnaire results, with the non-free private sector and UNRWA outperforming others in supporting struggling students. The public sector faces significant challenges in providing support, especially in some governorates such as Akkar and Mount Lebanon. Meanwhile, school principals in the South and Bekaa excel in implementing support programs for struggling students. Therefore, it is essential to work on improving the implementation of support programs in schools to reduce failure and dropout rates and achieve equal opportunities for all students, especially in the public sector and weak governorates like Akkar and Mount Lebanon (suburbs).

3. Analysis of the Results for the Third Research Question: What are the human and material factors that affect the readiness of public schools to implement developed curricula compared to private schools?

The study analyzed the human and material factors influencing the readiness of public schools to implement developed curricula compared to private schools. These aspects were evaluated through multiple questionnaires designed to assess schools' readiness in terms of human resources and material capabilities. The responses highlighted both challenges and opportunities, which will be detailed in the following sections for each of the mentioned factors.

3.1. Human Factors Affecting the Readiness of Public Schools to Implement Developed Curricula

This question included six points related to human factors, which were answered by principals, supervisors, coordinators, and teachers. The responses were analyzed by identifying these factors in both the public and private sectors and by governorates, followed by a comparison between the two sectors to identify where these factors have the greatest impact. A summary of the results from the four questionnaires was provided for each point. The answers for each point were as follows:

Item 1: The extent to which most teachers master technological skills

Analysis of the Principal Questionnaire Results

On the national level, most principals (29.0%) indicated that teachers have mastered technological skills, while 26.9% reported that teachers need further development in this area, and 24.7% stated that their mastery of these skills is acceptable. These results indicate a need for teacher training across all sectors.

Examining the results for each sector individually, we find that principals in the public sector largely (41.5%) believe that most teachers' mastery of technological skills needs development, which is the highest percentage of responses. This is followed by 32.7% who deemed it acceptable, 17.0% who considered it good, and 5.4% who found it very good. Meanwhile, 3.4% of principals stated that the teachers' mastery of these skills is completely inadequate. This indicates the need for empowering teachers in the public sector to master these skills.

In contrast, in the private free sector, most principals found that teachers' mastery of technological skills is good, with 36.7%, which is double the percentage in the public sector. This is followed by 23.3% who found it needing development, and 20.0% who deemed it acceptable. The percentage that found it completely inadequate (3.3%) is similar to the public sector. These results indicate that the level of mastery in this sector is better than in the public sector.

In the private non-free education sector, most principals (43.9%) found the level of teachers' mastery of technological skills acceptable, with 34.7% considering it good, which is better than in the public sector and similar to the private free sector. However, notably, no principals found the

level to be very good (0.0%), which indicates a need to work on improving technological skills among teachers in this sector.

In UNRWA schools, responses were distributed as follows: 50% considered the mastery level to be good (the highest among the sectors), 25.5% considered it acceptable, and only 25% found that teachers' mastery of technological skills needs development.

On the governorate level, the results indicate variation in the public education sector. About half of the sample of principals in Beirut (50%) and 45% in Akkar found the mastery to be acceptable, while a large percentage (60%) in the North found it needed development, which is the highest among the governorates. Akkar followed with 50%, compared to 25% in Beirut. In the private free education sector, principals found the level of mastery to be good in 100% of the cases, with the remaining categories distributed almost equally (25.0%) in Mount Lebanon suburbs.

The results from the private non-free sector show better indicators at the governorate level, with a 70% rate in Mount Lebanon (excluding suburbs), which is the highest among all governorates. In Beirut, the rate of "very good" is 44.4%.

In the UNRWA sector, the results are positive at the governorate level, with a 50% rate of "good" in the South and 25% of "very good."

As for the principals in the public sector, there is a significant need for skill development in the North and Akkar, while the South leads in the private free sector, where the results are somewhat balanced. Beirut and Mount Lebanon (excluding suburbs) lead in the private non-free education sector, which generally shows better performance.

Analysis of the Supervisors Questionnaire Results

The results from the public sector, according to the supervisors, indicate a noticeable weakness in technological proficiency. The majority (32.7%) believe that teachers need development, followed by 31.3% who consider the proficiency to be "acceptable." Only 4.6% consider it "very good," which is a low percentage, concentrated in the Northern, Baalbek-Hermel, and Akkar governorates.

On the other hand, the private free sector shows better performance, with 64.5% of supervisors considering technological proficiency "good" and 19.4% rating it "very good." Beirut leads with 100% in the "very good" category, followed by Nabatieh, Akkar, and Baalbek with 100% in the "good" category.

The private non-free sector represents the best performance, with 41.9% rating proficiency as "very good," and only 6.8% believe there is a need for development. In the UNRWA sector, the proficiency is distributed between "acceptable" (33.3%) and "good" (66.7%).

The supervisors' responses indicate that the highest percentages of the need for development are concentrated in all sectors and governorates, with a small exception in the governorates of Beirut, Nabatieh, Akkar, and Baalbek in the private non-free sector.

Analysis of Results from the Coordinators' Questionnaire

The results from the public sector indicate that, from the coordinators' perspective, teachers' proficiency in technological skills is "acceptable" at 55.6% and "good" at 33.3%. None of the coordinators found the proficiency to be "very good," which is a concerning indicator. In contrast, coordinators in the private free sector rated technological skills as "very good" and "good" at 100%. These percentages decrease in the private non-free sector, where the proficiency is "acceptable" at 58.3%, which is close to the public sector, "good" at 25%, and "needs development" or "inadequate" at 8.3%, which are notable figures.

At the governorate level, the proficiency in the Bekaa is "acceptable" at 45%, while in Mount Lebanon (suburbs) it is "good" at 47.1% and "acceptable" at 41.2%, with 11.8% indicating a need for development. This need for development reaches its highest in the North at 52.5%, which are concerning figures for the public sector, while high proficiency is seen in the private free sector and "good" proficiency is found in the private non-free sector in the North.

What should be noted is that coordinators in the public sector in Akkar believe that the proficiency level of teachers needs development at 53.8%, followed by the South at 52.4%, Nabatieh at 43.8%, and Mount Lebanon (excluding suburbs) at 38.5%. The highest percentages of coordinators who felt that teachers' skills "need development" were found in Akkar, the South, and Nabatieh. In contrast, the private free and non-free sectors show a positive trend in proficiency.

From the coordinators' results, it is clear that the majority of teachers in the public sector need to develop their technological skills, especially in the governorates of Akkar, the South, and Nabatieh. Teachers in the private sector have better proficiency than those in the public sector, with proficiency ranging between "very good," "good," and "acceptable" in most governorates.

Analysis of the Teachers Questionnaire Results

The results from the Questionnaire directed to the teachers indicate that the largest percentage across Lebanon and in the different sectors found that their proficiency in technological skills is "good" at 31.5%.

Only 21.7% of respondents believed that the proficiency of teachers in technological skills needs development. The results from the public sector indicate that the highest percentage was in the "acceptable" category, followed by the "needs development" category, then "good," and finally "very good," with the lowest being "completely inadequate." This suggests the need for teacher preparation to reduce these percentages.

In the private free sector, the results indicated that proficiency was "good" at a high percentage in the private non-free sector (38.3%), followed by the private free sector (35.4%). The percentages in other categories in both sectors showed a decline, while the UNRWA sector recorded the highest percentage in the "good" category (50%).

The public sector recorded the highest percentage in the "very good" category in Mount Lebanon (excluding suburbs), and in Beirut for the "good" category, followed by the South, Mount Lebanon

(suburbs), then the Bekaa, the North, and other governorates showed a decrease in the "very good" and "good" categories. This indicates the need for continuous training and support to enhance technological proficiency in the public sector.

In general, the public education sector needs to develop teachers' technological skills, particularly in governorates outside of Beirut and Mount Lebanon, except for the South. Meanwhile, there is consensus that the private sector as a whole shows improvement in teachers' proficiency in these skills.

Summary

The results from the Questionnaires directed at principals, supervisors, coordinators, and teachers show that the public sector needs significant development, especially in the northern, Akkar, and Bekaa governorates. In contrast, the private free and non-free sectors demonstrate better levels of technological proficiency, with higher percentages in the "good" and "very good" categories compared to the public sector. Geographic disparities were observed, with Beirut and Mount Lebanon outperforming other regions. Overall, the results highlighted the need to strengthen training and ongoing support for teachers in the public sector to ensure their skills align with modern requirements.

Item 2: Availability of Training and Technical Support for Teachers in Using Technology

Analysis of the Principal Questionnaire Results

The results from the public sector across Lebanon, according to the principals, indicated that the largest percentage of them (43.5%) found that the availability of training and technical support for teachers in using technology needs development. This was followed by the "acceptable" category (25.2%), then "good" (14.3%), "completely inadequate" (12.9%), and the lowest percentage was for the "very good" category, which recorded 4.1%.

In the private free education sector, the "good" category ranked first (33.3%), followed by "needs development" (23.3%), then the "very good" and "acceptable" categories with the same percentage (16.7%), and "completely inadequate" (10.0%) was the lowest category in this sector. In the private non-free education sector, the "good" category ranked first (40.8%), followed by "very good" (32.7%), "acceptable" (18.4%), then "needs development" (8.2%), and finally, "completely inadequate," which recorded no responses (0.0%). In the UNRWA education sector, the results were divided as follows: 50% of principals indicated "good," 25% found it "very good" and "needs development," and the remaining 0% considered it "acceptable."

Regarding the governorates, the highest percentages of principals in the public education sector who found the availability of training and technical support to be "acceptable" were in Beirut (37.5%), while in the North, 54.3% (the highest among all governorates) considered it "needs development," followed by Mount Lebanon (suburbs) at 45.5%.

In the private free education sector, the highest percentages of principals found the availability of training and technical support to be "appropriate" in the South (100.0%), while the ratings for other categories were equal in the remaining governorates (25.0%).

The results from the private non-free education sector indicated that the largest percentage in Beirut (44.4%) found the availability of training and technical support to be "very good," while in Mount Lebanon (excluding suburbs), the percentage for this category was also 50.0%. Similarly, in the UNRWA sector, 50.0% of principals considered the training and technical support to be "very good," while 40.0% found it to be "good."

The results from the Questionnaire directed to principals indicate that the North Governorate in the public sector needs more support and training for teachers. The private non-free education sector shows the best results across the various education sectors in all governorates. Meanwhile, the South Governorate records higher percentages for providing technical support to teachers in using technology.

Analysis of the Supervisors Questionnaire Results

The results from the public sector showed that the majority of supervisors, at 39.0%, agreed that the training and technical support for teachers "needs development," with this response receiving the highest percentage. This was followed by "acceptable" at 32.3%, then "good" at 17.5%, "completely inadequate" at 7.8%, and finally, the "very good" category received the lowest percentage at 3.2%.

From this arrangement, it is evident that there is an urgent need for training and technical support at the level of this sector. In contrast, the private free education sector showed the following order of responses from highest to lowest: "good" (48.4%), "very good" (22.6%), and then "completely inadequate" (6.5%).

The private non-free education sector recorded the highest percentage for "very good" compared to the other sectors, reaching 40.2%, followed by "good" at 37.6%, then "needs development" at 6.8%, and finally "completely inadequate" at 0.9%. Thus, this sector achieved the best results in terms of the availability of training and technical support for teachers across Lebanon. The UNRWA sector, in contrast, had the following ranking by percentage: "good" at 66.7%, followed by "acceptable" at 33.3%.

On the governorates level, the North Governorate leads in the need for development in the public sector at 52.6%. In Beirut, the percentages ranged between "acceptable" (45.5%) and "good" (27.3%), with a decrease in the percentage for "very good" in the same sector, which reached 9.1%. In Mount Lebanon (suburbs), the situation seems "acceptable" with a higher percentage in the public sector (52.9%) and "good" in the private free sector (40.0%), followed by "very good" (20.0%). In the private non-free sector, "very good" (40.6%) came first, followed by "good" (34.4%). In Mount Lebanon (excluding suburbs), the highest percentage in the public sector was "acceptable" (34.8%), followed by "good" and "very good" (50.0%).

In the private non-free sector, the "very good" category ranked first with 50.0%, followed by the "good" category with 41.7%.

In the Bekaa, the situation in the public sector is considered "acceptable" with 44.4%, but it is better in the private free sector, where "good" was 66.7% and "very good" was 33.3%. In contrast, the private non-free sector showed equal percentages for "good" and "acceptable," each at 35.7%. The North ranked highest in the "needs development" category in the public sector at 52.6%, and 60.0% in the private free sector, compared to 40.0% for "good" in this sector and 44.4% for the same category in the private non-free sector.

The private non-free sector showed a high level of positivity in the South, with 71.4% for "very good," while in the private free sector, the percentages were split equally between "very good" and "completely inadequate," each at 50.0%. The general trend in the public sector results pointed to "acceptable" at 40.6%, but it decreased in Nabatieh to become "acceptable" at 39.1% in the public sector and "good" at 30.4%.

The highest percentages for the need for development in the public sector were shared by the Akkar and Baalbek-Hermel governorates, both around 50.0%. The answers from supervisors in UNRWA schools in the Mount Lebanon and South governorates were "good" for the first (100%) and "acceptable" for the second (100%).

The results from the supervisors indicate that training and technical support for teachers are more readily available in the private sector and are not available to the same extent in the public sector.

Analysis of the Coordinators Questionnaire Results

The results from the public sector showed that the largest percentage of coordinators (55.6%) considered the training and technical support in Beirut to be "acceptable." In Mount Lebanon (suburbs), the highest percentage was split evenly between "acceptable" and "good," with each category at 35.3%. In Mount Lebanon (excluding suburbs), the highest percentage (53.8%) was for the "needs development" category. Similarly, the results from the North (49.2%), Bekaa (60.0%), South (38.1%), Nabatieh (50%), Akkar (50%), and Baalbek-Hermel (33.3%) also showed significant gaps, due to the percentages of "good" and "very good" decreased in favor of the "needs development" and "completely inadequate" categories, which were recorded in Akkar (for example, 23.1%) and in the North (18.6%).

In the private free sector, the responses ranged between "good" and "very good" in Beirut, Mount Lebanon (suburbs), and the Bekaa, while they tended towards "very good" in Mount Lebanon (excluding suburbs) at 60.0%, the North at 75.0%, and Akkar at 66.7%. In the South, the percentages for the "very good" category dropped to only 20.0%, and they were equally distributed in Nabatieh between "acceptable" and "very good." In Baalbek-Hermel, the responses were equally split between "completely inadequate" and "good" at 50.0% for each category.

The results from the private non-free sector indicated that the level of support and technical training for teachers ranged between "good" (33.3%) and "very good" (41.7%) in Beirut and Mount

Lebanon (excluding suburbs), with a tendency towards "very good" at 47.7% in Mount Lebanon (suburbs). In the North, the vast majority (41.9%) rated the support as "good," with considerable appreciation for the existing supporting systems. In the Bekaa, half of the coordinators (50%) considered the support to be "very good," suggesting well-established programs. In the South, the highest ratings were received in this sector, with 66.7% rating the support as "very good," reflecting model systems. In Nabatieh, the responses varied, with 45.5% rating the support as "acceptable," with fewer high ratings. In Akkar, the feedback was less positive, with only 7.7% rating it as "very good," and many chose the "acceptable" rating. In Baalbek-Hermel, nearly half of the coordinators (45.5%) rated the support as "very good," indicating strong training but inconsistent application. At UNRWA, the responses were split, with both the "completely inadequate" and "very good" categories each receiving 50% in the North, reflecting discrepancies in service delivery.

Based on these results, it is evident that there are challenges facing the public sector across all governorates regarding the need for development. Meanwhile, the private free sector shows better results in comparison. In the public sector, the private non-free sector records high percentages for "good" and "very good" responses, while the UNRWA sector shows equal responses for "completely inadequate" and "very good."

Analysis of the Teachers' Questionnaire Results

The results from the public sector showed that the highest percentages were for the category "needs development" at 38.5%, followed by "acceptable" at 27.4%, then "good" at 18.3%, followed by "completely inadequate" at 11.2%, and finally, "very good" at 4.5%. In the private free sector, the "very good" category ranked first at 29.2%, followed by "good" at 26.8%, then "needs development" at 25.4%, then "acceptable" at 12.4%, and lastly, "completely inadequate" at 5.3%. In the private non-free sector, "very good" ranked first at 40.0%, followed by "good" at 31.7%, then "acceptable" at 15.7%, followed by "needs development" at 11.0%, and finally, "completely inadequate," which recorded the lowest percentage at 1.7%. The "needs development" category ranked first in the UNRWA sector at 41.7%.

The "needs development" category recorded the highest percentage in Akkar (39.8%), followed by Baalbek-Hermel (38.1%), then the South (34.9%), the North (33.0%), the Bekaa (25.0%), Beirut (23.7%), Nabatieh (20.4%), then Mount Lebanon (excluding suburbs) (18.3%), and finally Mount Lebanon (suburbs), where teachers reported at 14.5% that training and technical support "needs development."

The ranking for the "completely inadequate" category across governorates from highest to lowest is as follows: North (11.4%), Akkar (10.8%), Bekaa (10.1%), South (8.3%), Nabatieh (5.4%), Beirut (4.1%), and Mount Lebanon (excluding suburbs) and Baalbek-Hermel (3.4%) both in the same rank, with the lowest percentage for "completely inadequate" recorded in Mount Lebanon (suburbs) at 2.2%.

It can be concluded that there is a need to provide training and technical support in all governorates, with particular emphasis on the more peripheral governorates.

Summary

The Questionnaire results revealed significant gaps in teacher training and technical support in the public sector, especially in the northern, Akkar, and Baalbek-Hermel governorates, where the highest percentage was concentrated in the "needs development" category. In the private free sector, the results were better, with high percentages for the "good" and "very good" categories. The private non-free sector performed exceptionally well, especially in Beirut and Mount Lebanon, with high ratings. In the UNRWA sector, results varied between "good" and "completely inadequate," reflecting significant disparities. Overall, there is a need to intensify efforts to provide training and technical support, with a focus on peripheral governorates.

Item 3: Availability of Maintenance and Updates for Electronic Devices

Analysis of the Principals Questionnaire Results

The results from the public education sector in Lebanon showed that the highest percentage was for the "needs development" category at 38.8%, followed by "completely inadequate" at 31.3%, then "acceptable" at 20.4%. The "good" category decreased to 6.8%, and "very good" dropped even further to 2.7%, placing it last in the sector.

In the private free education sector, principals rated the availability of maintenance and updates for electronic devices as "good" at 36.7%, followed by "needs development" at 23.3%, "acceptable" at 20.0%, "very good" at 13.3%, and finally, "completely inadequate" ranked last at 6.7%.

In the private non-free education sector, the highest percentages were again for "good" at 36.7% and "very good" at 34.7%. The ratings for the other categories dropped significantly, with "acceptable" at 17.3% and "needs development" at 11.2%. No principals in this sector rated the availability of maintenance and updates for electronic devices as "completely inadequate."

Regarding the differences between governorates, the results from the public sector showed an urgent need to improve maintenance in the northern governorate (45.7% of principals believe the situation "needs development") and the Mount Lebanon suburbs (27.3% of principals see it as "needing development"). The general results in the public sector also indicated a need to reassess the maintenance and device update situation in Beirut, as more than half of the sampled principals in the area considered the situation "completely inadequate."

Results from the private free education sector were positive in the southern governorate (100% of principals considered the situation suitable). The private non-free education sector recorded the best results across the governorates, especially in Beirut (55.6% of principals in the area considered maintenance and updates to be "very good"). In contrast, 50% of the principals in the UNRWA sector in the south considered the availability of maintenance and device updates as "good," while 25.0% across all governorates rated it as "needs development."

The northern governorate witnessed a clear decline in maintenance and updates, as 45.7% of principals believed the situation "needs development," which was the highest percentage among all governorates.

Analysis of the Supervisors Questionnaire Results

The results from the Questionnaire directed to the supervisors indicated that about a quarter of the sample (24.4%) believed the condition of public schools was "completely inadequate," while more than a third of the sample (34.6%) felt the situation "needs development."

The percentages for "good" and "very good" were low, not exceeding 12.0%. In contrast, results from the private free education sector showed the highest percentage for "good" (38.7%), followed by "very good" and "acceptable" at 22.6% each. Lastly, the category "needs development" ranked last at 16.1%, which reflects a generally good situation in terms of maintenance and device updates.

However, the "needs development" results in the supervisors' view are not insignificant, although they ranked last in the evaluations. In the private non-free education sector, the "very good" category ranked first at 41.9%, followed by "good" at 36.8%, with the percentages for other categories declining significantly. In descending order, the category "completely inadequate" represents less than 1%. All supervisors in the UNRWA sector described the situation as "acceptable" at a rate of 100%.

Upon comparing the results between the governorates, we find that Beirut lags in terms of maintenance and updates in the public sector, recording the highest percentage in the "completely inadequate" category (36.4%) in this sector. In the private free sector, 100% of the responses were "good," and in the private non-free education sector, 55.6% rated it as "very good," with good to average performance in the Mount Lebanon suburbs across all sectors.

Performance declines in public schools in the north, where 28.9% consider the situation "inadequate," improving in private education in this governorate, where the "very good" category scored 40.0%. A similar trend is observed in the governorates of the Bekaa, Akkar, and Baalbek-Hermel regarding the differences between the sectors in these areas. In the south, the public sector performs better than in other governorates, as the "acceptable" category received 37.5% of the responses from supervisors in this sector, a relatively high percentage compared to the other categories. The private sector in the governorate recorded results divided between "good" and "very good," similar to other governorates.

Analysis of the Coordinators Questionnaire Results

The results from the public sector, as viewed by the coordinators, show a decline in the maintenance and updating of devices in Beirut, where about half of the sample (44.4%) indicated it "needs development," and 33.3% rated it as "acceptable." More than a fifth of the sample (22.2%)

found it "completely inadequate," while none of the coordinators considered the maintenance and updates to be good or very good. A similar situation is found in Mount Lebanon (suburbs), with more than a third of the sample considering it "completely inadequate" (35.3%) or in need of improvement. The results somewhat align with those from Mount Lebanon (excluding the suburbs). Half of the coordinators in the northern governorate (50.0%) considered the maintenance of devices as "needs development" or rated it as "completely inadequate," and a similar situation was found in the Bekaa governorate, where the highest percentage was for the "needs development" category (40.0%). In the south, the "needs development" percentage was high (37.5%), but the largest portion of coordinators in this governorate (42.9%) stated that the situation was acceptable.

Maintenance and device updates are considered "acceptable." In the Nabatieh governorate, half of the coordinators (50.0%) believe that maintenance services "need development," and about a third (31.3%) find them "acceptable." In Akkar governorate, more than a third of the sample found maintenance to be "completely inadequate" at a rate of (30.8%), while half of the sample (50.0%) suggested that it "needs development." Around half of the coordinators in Baalbek-Hermel (44.4%) suggested that maintenance "needs development," with a significant percentage in this governorate for the "very good" category (16.7%), which is higher than in other governorates.

In both the private free sector and the private non-free sector, responses were distributed between "good" and "very good" across all governorates, with a greater concentration in Beirut and Mount Lebanon. In the UNRWA sector, responses in the governorates were split between "needs development" and "good."

From the results above, it can be concluded that the public sector suffers from a lack of maintenance and updates for electronic devices, with this issue being particularly noticeable in peripheral governorates. Meanwhile, the private free and private non-free sectors perform better, particularly in the Beirut and Mount Lebanon governorates.

Analysis of the Teachers Questionnaire Results

The results from the public sector show that the largest percentage of teachers (38.1%) believe that maintenance and updates "need development," followed by a percentage describing the situation as "acceptable" (25.6%), and then the "completely inadequate" category at (18.0%), which is a percentage worth noting. (14.3%) of teachers in the public sector described the availability of maintenance and updates for electronic devices as "good," and a small percentage (4.1%) considered it "very good."

In the private free sector, the largest group found it to be "very good" at (27.3%), followed by the "needs development" category (24.9%), then "good" (27.3%), "acceptable" (16.3%), and finally, "completely inadequate" at (9.1%). In the private non-free sector, the responses were ranked as follows: "very good" (34.2%), then "good" (31.7%), then "acceptable" (18.3%) and "needs development" (10.6%), with a very small percentage (5.3%) finding it "completely inadequate."

The responses in the UNRWA sector indicated that half of the sample (50.0%) believed the situation "needs development," and the opinions that it was "completely inadequate" ranked last in the sector at (8.3%).

As for the results by governorates, teachers' opinions on the availability of maintenance and electronic device updates showed the highest percentage in the "good" category in the governorates of Beirut (37.1%) and Mount Lebanon excluding suburbs (30.9%). The largest percentage in Mount Lebanon (suburbs) classified it as "very good" (33.3%). In the Bekaa region, the largest response was "acceptable" (30.3%), while the "needs development" category had the highest percentage in the southern governorates (43.2%), Baalbek-Hermel (33.9%), Akkar (32.3%), North (31.6%), and Nabatieh (26.9%). Noticeable percentages for "completely inadequate" responses were recorded, reaching at least (10%) of the sample, indicating that teachers in most governorates outside Beirut and Mount Lebanon find the level of maintenance and updates for electronic devices unsatisfactory across all sectors.

Summary

After reviewing the results of Questionnaires directed at principals, supervisors, coordinators, and teachers, it becomes evident that there is a significant weakness in the maintenance and updates of electronic devices in the public sector, particularly in peripheral governorates like North, Akkar, and Baalbek-Hermel, where the categories "needs development" and "completely inadequate" are predominant. The free private sector shows more positive results, with high percentages for "good," and the non-free private sector performed excellently with "very good" and "good" categories. In the UNRWA sector, the results varied by governorate, with recurring needs for improvement in support. Overall, significant gaps exist in the public sector that require urgent solutions to enhance maintenance and updates, with noticeably better performance in the private sector.

Item 4: Availability of Technical Support Teams in Schools to Address Technology Issues

Analysis of Principals Questionnaire Results

The responses from public sector principals indicated, in descending order, that the availability of specialized technical support teams to address technology issues in schools was "completely inadequate" with a large percentage (51.7%), followed by "needs development" (28.6%), then "acceptable" (9.5%), followed by "good" (7.5%), and the category describing the situation as "very good" ranked last with (2.7%).

In the free private education sector, the descending order of responses was as follows: "good" (36.7%), "needs development" (23.3%), "acceptable" (16.7%), "very good" (13.3%), and "completely inadequate" (10.0%). In the non-free private education sector, the responses were ranked as follows: "very good" (33.7%), "good" (32.7%), "acceptable" (21.4%), "needs development" (12.2%), and "completely inadequate," which received no responses. In the UNRWA sector, the responses were equally distributed across: "very good," "good," "acceptable," and "needs development" (25.0% each), with no responses for "completely inadequate."

Comparison by Governorates: When comparing the results by governorate, the public education sector suffers from a clear shortage of specialized technical support teams to handle technology issues in Beirut, where principals indicated (37.5%) that the situation was "completely inadequate." In contrast, principals in the non-free private education sector in Beirut found the situation to be "very good" at (44.4%). The problem is more pronounced in the North governorate, where (65.7%) of principals find the situation "completely inadequate," which is a significant percentage requiring intervention, followed by Mount Lebanon suburbs (54.5%) and the South (46.7%). This indicates that schools in the public sector need specialized support teams to address technological issues.

In the free private education sector, all principals in the South (100.0%) confirmed that their schools have support teams to address technological problems and described the situation as "very good." The highest percentage of principals in the non-free private education sector in Mount Lebanon suburbs rated the availability of specialized technical support teams for technology as "very good" (33.3%).

Schools in the UNRWA sector in the South complain about the lack of support teams to address technological issues, and half of the sample of principals (50.0%) consider the situation "needs development." In contrast, in Mount Lebanon suburbs, the entire sample (100.0%) believes the situation is "very good."

The results above suggest that the availability of specialized technical support teams faces challenges, particularly in the public sector, with a noticeable decline in other sectors, especially in governorates outside Beirut and Mount Lebanon.

Analysis of Supervisors Questionnaire Results

The results from the public sector indicate that the largest percentage of supervisors find the situation "completely inadequate" or "needs development" (31.0%), followed by a notable percentage (23.5%) considering the situation "acceptable." The percentages for "good" and "very good" are lower, with "good" at (9.2%) and "very good" at (2.8%), which came last. This is consistent with the previous results and highlights the need for schools to be strengthened with technical support teams to address technology issues.

The highest percentage of weakness was recorded in the Baalbek-Hermel governorate, where about half of the supervisors (47.1%) described the situation as "acceptable." In contrast, supervisors in Beirut and Mount Lebanon (excluding suburbs) recorded the lowest percentages for this view, with (9.1%) and (4.3%) respectively.

Looking at the results from the free private education sector, the largest percentages ranged from "good" (41.9%) to "very good" (22.6%), followed by "acceptable" and "needs development," both with the same percentage (16.1%). The category describing the situation as "completely inadequate" was the smallest at (3.2%).

Data from the non-free private education sector show a similar trend, with the only difference being that the "needs development" category ranked fourth (8.5%) instead of third. All supervisors in UNRWA schools in Mount Lebanon reported that the situation was "good" (100.0%), while all supervisors in the South (100.0%) stated that it "needs development."

One of the paradoxes recorded in the results of free private education is that all supervisors in Beirut governorate agree that the situation is "very good" (100.0%), while all supervisors in Baalbek-Hermel governorate (100.0%) say it "needs development."

The extent of technical support in non-free private education is more apparent in Baalbek-Hermel governorate (72.7% in the "good" category) and Mount Lebanon (58.3% in the "very good" category), while in Beirut, the percentage (11.1%) of supervisors who said the situation "needs development" was noted.

From the results above, it is clear that there is an urgent need for technical support in the public sector to match the quality of education in both private sectors. While results from non-free private education show significant progress in all governorates, the results from free private education indicate differences between Beirut and other governorates.

Analysis of Coordinators Questionnaire Results

Results from the public sector indicate a high percentage of coordinators in the North, Mount Lebanon (suburbs), Beirut, and the North who view technical support as "completely inadequate," with recorded percentages of (37.3%), (35.3%), and (33.3%), respectively. Additionally, those who believe it "needs development" are (44.4%) in Beirut, (41.2%) in Mount Lebanon (suburbs), and (35.6%) in the North. A modest percentage was recorded in the "acceptable" category, with (30.8%) in Mount Lebanon (excluding suburbs), (25.0%) in the North and Bekaa, and (23.5%) in Mount Lebanon (suburbs), with Beirut recording the lowest percentage (22.2%). The highest percentage in terms of the "needs development" category was in Baalbek-Hermel governorate (50.0%), followed by Akkar (42.3%), Bekaa (40.0%), the South (38.1%), and Nabatieh (37.5%). The "completely inadequate" category followed this. About a quarter of the sample in the governorates said that support was "acceptable."

In comparison with the free private sector, no negative evaluations were provided in Beirut and Bekaa governorates, where all responses indicated that support was "good" or "very good." In Mount Lebanon (suburbs), more than half of the sample (60.0%) found it "good" or "very good." In Mount Lebanon (excluding suburbs), the "good" rating was significant (60.0%), but there was a noticeable percentage of "acceptable" responses (40.0%), which is just under half of the sample, a remarkable result in size. The results were nearly equal in the North governorate. The highest percentage of coordinators who found support to be "good" was recorded (more than half the sample).

In the non-free private sector, Beirut governorate showed the same results as the free sector for "good" and "very good" (50.0%) and (25.0%), respectively. However, a notable percentage of coordinators (16.7%) found the situation to "need development." In Mount Lebanon (suburbs), no

discrepancies were recorded between the percentages of responses. Coordinators in UNRWA reported equal distribution between "needs development" and "good."

This comparison indicates the deficiencies that the public sector faces in terms of the availability of specialized technical support teams, specifically in governorates away from the capital. It also reveals the significant gap between the public and private sectors regarding satisfaction with technical support services.

Analysis of Teachers Questionnaire Results

The Questionnaire results for teachers across Lebanon show that the largest percentage of teachers (25.1%) believe that specialized technical support teams to handle technology "need development." Around one-fifth of the sample (17.0%) found the situation to be "completely inadequate" across all sectors in Lebanon.

In the public sector, the largest percentage of teachers reported that the situation "needs development" (35.1%), followed by "completely inadequate" (24.9%), then "acceptable" (24.0%), followed by "good" (12.7%). A very small percentage (3.3%) said the situation was "very good." These results clearly indicate a negative reality surrounding the technical support teams in the public sector.

In comparison to the free private sector, the ranking of responses from highest to lowest was as follows: "Very good" (27.3%), "Good" (23.0%), "Needs development" (21.5%), then "Acceptable" (15.8%), and finally "Completely inadequate" (12.4%). In the non-free private sector, the results were arranged as follows: "Very good" (35.7%), the highest percentage recorded in any of the categories in the governorates and sectors (except for the UNRWA sector, which had the highest percentage for "Needs development" at 50.0%), followed by "Good" (30.8%), "Acceptable" (16.6%), "Needs development" (10.4%), and finally "Completely inadequate" (6.5%). The results from UNRWA indicated that half of the sample (50.0%) of teachers found the situation to be "Needs development," followed by the "Good" category (25.0%), then "Acceptable" (16.7%), and finally "Completely inadequate," which recorded a percentage of (8.3%).

As for the governorates, the largest percentage of teachers in public schools in Beirut found the situation to be "Good" (30.9%), compared to a reasonable percentage who described the situation as "Completely inadequate" (21.6%). The highest percentage in Mount Lebanon (suburbs) was for the "Very good" category (36.1%), with "Needs development" in the penultimate rank (15.4%), just before "Completely inadequate," which recorded (4.9%). In Mount Lebanon (excluding suburbs), the "Good" category ranked first at (28.0%), followed by both "Acceptable" and "Very good" at (20.0%) each. However, the paradox in this governorate was that the "Completely inadequate" evaluation did not come last, as in other sectors, but instead came before the final evaluation, "Needs development," at (17.7%).

Significant differences emerged in the North governorate, where the highest evaluation was "Needs development" at (29.4%), followed by "Completely inadequate" at (24.0%), then

"Acceptable" at (18.7%), and "Good" at (15.3%). "Very good" ranked last at (12.6%), highlighting the extent of the deficiency in technical support teams in this governorate.

In the Bekaa governorate, teachers found the availability of technical support teams acceptable at a large percentage (25.0%), followed by the answer "Needs development" (20.2%), with "Good" and "Very good" equally rated (18.1%). Teachers at (18.6%) found the availability of technical support teams to be "Completely inadequate." The governorates of Akkar, the South, Baalbek-Hermel, Nabatieh, and the North recorded the highest percentages in the "Needs development" category (34.7%, 33.7%, 29.7%, 29.4%, and 28.1%), indicating teachers' dissatisfaction with the availability of technical support teams in these governorates. The "Acceptable" category followed, then "Good," and finally "Completely inadequate," which ranked last in Baalbek-Hermel with a percentage of (16.1%), and finally, the "Very good" category. In Akkar, the responses were led by "Needs development," followed by "Completely inadequate" (22.3%), then "Acceptable" (19.9%), "Good" (13.1%), and finally, "Very good," which had a percentage of (10.0%).

These results indicate a widening gap between the public and private sectors, with a clear preference for the private sector in all its forms, and variation in results within each sector based on the governorates. The main conclusion, however, is that these results reveal the extent of the need to enhance the presence and role of specialized technical support teams to deal with technology in all sectors, across all governorates, without focusing on some governorates over others within the same sector.

Summary

It is evident from the above results that public schools suffer from a severe shortage of technical support teams to handle technology, with the highest percentages for "Needs development" and "Completely inadequate," particularly in peripheral governorates such as the North, Baalbek-Hermel, and Akkar. In contrast, the private sector, in both its forms, performed much better, with high percentages for "Very good" and "Good," especially in Beirut and Mount Lebanon. In the UNRWA sector, results were mixed between "Needs development" and "Good," reflecting the need for improvements. Overall, the results show a significant gap between the public and private sectors, with an urgent need to support public schools with specialized technical teams in all governorates.

Item Five: Teachers' Proficiency in Implementing Support Programs for Struggling Learners

Analysis of Principals Questionnaire Results

The percentages of results from principals in the public sector indicated that teachers' proficiency in implementing support programs for struggling learners was mostly rated as "Needs development" at a significant percentage of (36.1%), followed by "Acceptable" at (29.3%), "Good" at (18.4%), "Completely inadequate" at (13.6%), and "Very good" at a low percentage of (2.7%). In the free private sector, the results showed relatively better data compared to the public education sector. The "Needs development" category received a large percentage of (36.7%), followed by "Acceptable" at (26.7%), "Good" at (20.0%), and "Very good" in the fourth place at (10.0%). The

lowest percentage was for "Completely inadequate," which stood at (6.7%). In the non-free private education sector, the results were different, with the "Good" category ranking first at (42.9%), followed by "Acceptable" and "Very good" in second place at (22.4%), and "Needs development" in third place at (9.2%). The least percentage (3.1%) found that teachers' proficiency in implementing support programs for struggling learners ranked last. The UNRWA sector's results were all concentrated in two categories: "Good" at the top with (75.0%), and "Acceptable" in second place with (25.0%), with no responses recorded for other options.

It was noted that there was significant improvement in some governorates, such as the South and Bekaa, in the free private sector, where the percentage of "Very good" reached (33.3%).

The results from Beirut Governorate indicated that (38.9%) of principals in all sectors rated teachers' proficiency in implementing support programs for struggling learners as "Good," while the "Very good" category reached (16.7%). In the public sector, the results from Beirut were generally better than those from other governorates within the same sector, especially when compared to Baalbek-Hermel Governorate, which recorded a high percentage for "Completely inadequate" (27.3%).

In Mount Lebanon, there were clear differences between the suburbs and the rest of the governorates. In the suburbs, the percentage of "Good" was (32.7%), and "Very good" was (18.4%), while other governorates recorded higher percentages for "Acceptable," particularly in Akkar (35.7%), which was the highest in this category across all governorates.

The North Governorate suffers from high percentages in the "Needs development" category, reaching (45.5%), indicating a significant training gap. The Bekaa shows relatively balanced results, with (24.0%) of principals rating performance as "Very good," which still requires efforts to improve training.

In the South, the data show better performance, with "Good" reaching (40.0%) and "Very good" at (8.0%). Nabatieh records a high percentage for "Very good" at (39.3%). Akkar shows a high percentage for "Acceptable" (35.7%) with "Needs development" at (39.3%).

In Baalbek-Hermel, the "Needs development" category has a percentage of (26.3%), while the "Very good" category does not exceed (15.8%).

The non-free private education sector shows better performance than the other sectors, particularly in the "Good" category at (42.9%), which is the highest among the categories, and "Very good" at (22.4%). This performance is clearly evident in the "Needs development" category, which recorded the lowest percentage among sectors at (9.2%).

The results indicate that teachers in the public sector need to master programs supporting struggling learners, as evidenced by the high percentages in the "Needs development" categories. The free and non-free private sectors outperform the public sector, but some governorates, particularly in the outskirts, still need additional support to improve this mastery.

In all sectors, the North Governorate shows significant deficiencies, while the situation in the Bekaa is acceptable but not good. In governorates outside Beirut and Mount Lebanon, the South and Nabatieh perform better compared to the peripheral governorates. Akkar and Baalbek-Hermel face a clear shortfall in teachers' mastery of support programs for struggling learners.

Analysis of Supervisors Questionnaire Results

The overall results from the supervisors in the public sector indicated that the vast majority believe that technical support teams need improvement, with the largest percentages of responses to this item being "Completely inadequate" (31.1%) and "Needs development" (33.2%). The "Good" and "Very good" responses ranked the lowest (9.2% and 2.8%, respectively). This contrasts with the results from the free private education sector, which clearly indicated that the situation is largely positive, showing a discrepancy in the evaluation of the technical support teams between the two sectors, favoring the latter.

The results from the non-free private education sector were more positive compared to the previous sectors, with only a few supervisors (19.3%) believing that teachers' proficiency in implementing support programs for struggling learners "Needs development" and "Completely inadequate" (19.3%). This gives this sector an advantage in the positive evaluation of teachers' proficiency in support programs. In UNRWA schools, all supervisors (100.0%) rated the situation as "Good" in Mount Lebanon and "Needs development" in the South at (100.0%).

In Beirut Governorate, the results indicated that the teachers' proficiency in support programs for struggling learners, according to supervisors, was "Completely inadequate" at a large percentage in the public sector (36.4%), while it was "Very good" at (100%) in free private education, and (66.7%) in non-free private education. In Mount Lebanon, the level of proficiency was lowest in the public education sector, as well as in the North and Bekaa Governorates, where the highest percentages in this sector favored "Needs development" (39.5% in the North), while these percentages were in favor of "Very good" and "Good" in the other sectors.

In the Nabatieh and South governorates, the non-free private sector excelled over the other sectors (60.0% for "Good," and 20.0% for "Very good"), while the highest percentages in the public sector remained between "Needs development" and "Completely inadequate." Akkar and Baalbek-Hermel recorded the highest percentages in these two responses in public education (39.5%).

The results from the supervisors' responses highlighted challenges faced by the public sector in the teachers' proficiency in implementing support programs for struggling learners, which were clearly evident in the peripheral governorates. The free private education sector showed satisfactory results in all governorates, except the North. Akkar in the non-free private education sector still requires improvement in teachers' mastery of support programs.

Analysis of Coordinators Questionnaire Results

The responses from coordinators in the public education sector in Beirut and Mount Lebanon (suburbs) focused on the answer "Acceptable" (44.4% and 47.1%, respectively), while about one-fifth of the sample in Beirut rated teachers' proficiency as "Completely inadequate" (22.2%). Due to the lack of positive results, teachers' proficiency faces challenges stemming from the coordinators' dissatisfaction. This challenge is particularly evident in the North Governorate (40.7%), Akkar (46.2%), and Baalbek-Hermel (44.4%), where the percentage of those who reported that teachers' proficiency "Needs development" is high. The positive responses for "Good" and "Very good" are lower. For example, the "Very good" category in Baalbek-Hermel was rated at (5.6%), indicating significant gaps in this skill. This contrasts with the results from coordinators in the free private sector, where all of them reported that teachers' proficiency in Beirut was "Very good" at (100.0%), the highest rate across all governorates in this sector. More than half of the coordinators (60.0%) in Mount Lebanon (suburbs) rated teachers' proficiency as "Good" and "Very good," while the rate was 100% in Nabatieh Governorate. However, these positive rates decreased in Akkar, with (33.3%) reporting "Acceptable" and (66.7%) reporting "Good."

Returning to the detailed results of the public education sector, the need to improve proficiency is most prominent in Akkar, followed by the North, with relatively lower needs in Beirut, Bekaa, and the South. In the free private sector, the need for improvement is more evident in Baalbek-Hermel, where the coordinators' results showed that the situation "Needs development" with a percentage exceeding (40.0%). In the non-free private sector, about (60.0%) of the coordinators in Mount Lebanon (suburbs) found that teachers' proficiency was "Good" or "Very good," indicating a high level of satisfaction with teachers' performance. A small percentage of coordinators considered teachers' proficiency to be "Completely inadequate" (11.2%).

Coordinators in both the free and non-free private sectors agree on a high level of satisfaction in Mount Lebanon (suburbs), while this satisfaction declines when discussing the northern governorates, Akkar, and Baalbek-Hermel, similar to the results in the public sector.

Overall, the results indicate the urgent need to improve teachers' proficiency in implementing programs for supporting struggling learners across all sectors, with particular priority given to the public sector. This need is evident across all governorates, with special priority for the governorates far from Beirut and Mount Lebanon, with some exceptions.

Analysis of Teachers Questionnaire Results

The general results from teachers indicate that the largest percentage of teachers in Lebanon (28.0%) reported that their proficiency in implementing support programs for struggling learners was "Acceptable." While this percentage did not exceed 30.0% of the total teachers, it was the highest among other response percentages, followed by the answer "Good" (25.7%) and "Needs Development" (22.3%). The phrase "Completely Inadequate" ranked last across all sectors, with a percentage of (8.5%).

The largest percentage of teachers in the public sector (34.8%) indicated that their proficiency in implementing support programs for struggling learners was "Acceptable." However, they felt that this proficiency "Needs Development" at a slightly lower rate of (30.0%). The answer "Completely Inadequate" (10.2%) was not the lowest among teachers but was for those who rated their proficiency as "Very Good," with a percentage of (5.2%). Opinions in the private free and non-free sectors differed in favor of the answer "Good" (25.4% and 34.7%, respectively), followed by "Very Good" (21.1% and 29.7%, respectively), then "Acceptable" (20.6% and 19.9%, respectively), and finally "Needs Development" (20.1% and 11.2%, respectively). In the UNRWA sector, teachers' opinions were divided between "Good" (33.3%) and "Acceptable" and "Needs Development," with similar percentages of (33.3% for the first category and 25.0% for the second).

At the governorate level, the "Good" category recorded the highest percentage of teachers in Beirut (36.1%), Mount Lebanon (except for the suburbs) (32.6%), and Baalbek-Hermel (28.8%). Mount Lebanon (suburbs) recorded the highest percentage of teachers who rated the proficiency as "Very Good" at (33.0%), the highest in this category across all governorates. The governorates with the highest percentage in the "Acceptable" category were: Nabatieh (36.5%), followed by the South (35.5%), Akkar (31.5%), and finally Bekaa (30.9%). The other categories in these governorates recorded lower percentages. The largest percentage of teachers in the North Governorate reported that the situation "Needs Development" at (28.2%).

It is clear that teachers' proficiency in implementing support programs for struggling learners is not uniform, even within the same sector or governorate. The disparity is evident in the order of positive responses and the ranking of governorates, especially in the North and Akkar. The classification of educational sectors showed that the non-free private sector outperformed the other sectors, while the public sector faces significant challenges in this regard.

Summary

The Questionnaire results showed a significant disparity in teachers' proficiency in implementing support programs for struggling learners between sectors and governorates. The public sector clearly suffers from a lack of proficiency, especially in remote areas like Akkar, the North, and Baalbek-Hermel, where the most common responses were "Needs Development" and "Completely Inadequate." In contrast, the non-free private sector showed positive performance, with a notable lead in the "Good" and "Very Good" categories, while the free private sector recorded moderate results with room for improvement in some governorates. Beirut and Mount Lebanon (suburbs) showed better performance compared to the peripheral regions. Overall, all sectors and governorates require improvements in teachers' proficiency, with priority given to the public sector and remote governorates.

The analysis highlights a significant disparity between governorates and educational sectors in the proficiency of teachers in implementing support programs for struggling learners. Focusing on building teachers' capacity through training and exchanging experiences between sectors can be a sustainable solution to improve outcomes.

Item 6: Proficiency of Most Teachers in Implementing Social-Emotional Support Programs

Analysis of Principals Questionnaire Results

The results from the principals in the public education sector indicated that the largest percentage of them (36.1%) believe that teachers' proficiency in implementing social-emotional support programs is "Acceptable." A smaller percentage (32.0%) think it "Needs Development," followed by "Good" (17.7%), and the lowest percentage in the "Very Good" category (3.4%). Positive results in the public sector were concentrated in Beirut, showing relatively better performance, with results declining in the North and Bekaa.

The opinions of principals in the private free education sector were similar to those of their colleagues in the public sector, with the largest percentage (33.3%) answering that the situation "Needs Development," followed by "Acceptable" at a lower percentage (23.3%). In contrast, principals in the non-free private sector described the situation as "Good" and "Very Good" (32.7% and 18.4%, respectively). While the results did not show significant differences between the options, in the UNRWA sector, a large percentage (75.0%) of principals found teachers' performance to be "Very Good."

At the governorate level, the highest percentage for all sectors was "Good" in Beirut (38.9%) and the South (36.0%), while the lowest was "Completely Inadequate" (0.0% and 8.0%, respectively). In the governorates of Mount Lebanon (suburbs) and Mount Lebanon (excluding suburbs), the highest percentage was "Acceptable" (30.6% and 46.9%, respectively), with the lowest being "Completely Inadequate" (6.1% and 6.3%, respectively). The response "Needs Development" ranked first in the answers from principals in the governorates of the North (41.8%), Bekaa (32.0%), and Akkar (39.3%). "Very Good" ranked last in the North Governorate at only (3.6%), while "Acceptable" ranked last in Bekaa (12.0%) and "Completely Inadequate" in Akkar (3.6%). In the governorates of Nabatieh and Baalbek-Hermel, principals answered "Acceptable" at higher rates (35.7% and 36.8%), while the lowest percentage was for the response "Very Good" (3.6% and 5.3%).

The results, based on the governorates, show that "Acceptable" was the most common response, followed by "Needs Development," then "Good," "Very Good," and finally "Completely Inadequate." Based on sectors, high percentages were recorded in the "Needs Development" category. The private free education sector showed moderate results, while the non-free private education sector showed generally better performance compared to other sectors. The UNRWA sector showed a level of excellence by recording high percentages in the "Very Good" category.

Analysis of Supervisors Questionnaire Results

The highest percentages of supervisors in the public education sector found the implementation of social-emotional support programs to be "Needs Development" (36.9%) first, followed by "Acceptable" (30.0%), "Good" (16.1%), and "Completely Inadequate" (13.8%). This reflects the

supervisors' dissatisfaction with the current implementation and the need for improvement. This differs in the private free and non-free education sectors, where the highest percentage of supervisors found teachers' proficiency to be "Good" (54.2% and 35.0%, respectively), and to a lesser extent, they found it "Very Good" (16.1% and 26.5%).

There were clear regional differences, with results from the non-free private sector indicating a need to improve teachers' proficiency in implementing social-emotional support programs in Akkar and Bekaa. Supervisors' opinions in the UNRWA sector were divided between "Good" and "Acceptable" in Mount Lebanon, and entirely positive (100.0%) in the South Governorate.

The results also suggest moderate satisfaction among supervisors in Beirut and across all sectors regarding the level of teachers' proficiency in implementing social-emotional support programs. There is a clear need to improve the programs in the governorates of Mount Lebanon (suburbs), the North, Akkar, and Baalbek-Hermel in the public sector. Meanwhile, the private free and non-free education sectors maintain better performance compared to the public education sector.

Analysis of Coordinators Questionnaire Results

The highest percentages of coordinators' responses in the public education sector regarding teachers' proficiency in social-emotional support programs were distributed across the governorates as follows: the largest percentage in Beirut rated it as "Good" and "Acceptable" (33.3% for each), while a smaller percentage (22.2%) rated it as "Completely Inadequate." In the Mount Lebanon (suburbs) governorate, "Acceptable" was the highest rating at 35.3%, followed by "Good" at 29.4%, with a noticeable percentage rating it as "Needs Development" (about a quarter of the sample). This same rating was echoed by coordinators in the governorates of Mount Lebanon (excluding suburbs), the North, Bekaa, the South, Nabatieh, Akkar, and Baalbek-Hermel (this category recorded the highest percentage for this rating among the governorates). While there were other positive results, the focus of coordinators in the public sector, in most governorates, on the need to improve teachers' proficiency in social-emotional support programs suggests that the effectiveness of these programs should be reconsidered, and that the level of proficiency in these skills needs to be raised.

Results from the private free sector showed that the rating in Beirut was "Acceptable" at 100.0%, while the highest percentage in Mount Lebanon (suburbs) was for the ratings "Very Good" and "Acceptable" (40.0% for each), indicating positive indicators for the sector. In the governorates of Mount Lebanon (excluding suburbs) and the North, the highest percentage was for the "Good" rating (60.0% and 75.0%, respectively), with a quarter of the sample in the North (25.0%) and more than half the sample in the South (60.0%) indicating that the situation "Needs Development." High performance was observed in Bekaa and Nabatieh, where half of the sample (50.0%) rated it as "Very Good." In Akkar, the highest percentages were split between "Very Good" and "Needs Development" (33.3% for each). A notable variance appeared in Baalbek-Hermel, with half of the coordinators (50.0%) rating the performance as "Very Good" and also "Completely Inadequate."

In the non-free private sector, the ratings in Beirut were split between "Good" and "Completely Inadequate" (25.0%) for each (a quarter of the sample). Ratings ranged from "Good" to "Very Good" in Mount Lebanon (suburbs) (39.1% and 32.6%), Mount Lebanon (excluding suburbs) (36.8%), and the South (33.3% for both "Good" and "Very Good").

Most governorates shared the call for the development of support programs, with Akkar being the highest (30.0%), indicating a decline in teachers' proficiency in implementing these programs. Significant percentages in Nabatieh and Baalbek-Hermel rated the performance as "Good" (54.5% for each), while "Very Good" was rated highest in Bekaa (37.5%), as the highest percentage among the governorates in the sector. All coordinators in the UNRWA sector in the North governorate agreed that the rating was "Good" (100.0%).

The results from coordinators indicate variations in proficiency levels across sectors and governorates, with the private education sectors (both free and non-free) performing better compared to the public education sector. Regarding governorates, clear challenges appeared in regions such as the South, North, and Akkar.

Analysis of Teachers Questionnaire Results

The results from teachers across all sectors and governorates showed that the largest percentage rated their proficiency as "Acceptable" (29.5%), followed by "Good" at 27.0%, "Needs Development" at 20.3%, "Very Good" at 15.8%, and finally, "Completely Inadequate" at 7.4%.

These percentages remained consistent in the public sector, except for the lowest percentage which was for the "Very Good" rating (7.3%) instead of "Completely Inadequate" which was rated at 7.6%.

In the private free sector, the largest percentage of teachers rated their proficiency as "Good" (27.8%), followed by "Needs Development" at 22.5%. In the private non-free sector, the largest percentage rated their proficiency as "Good" (31.4%), followed by "Very Good" at 27.9%, with the smallest percentage rating it as "Completely Inadequate" at 5.7%. In the UNRWA sector, the results were distributed as follows: "Acceptable" (50.0%), "Good" (25.0%), and "Needs Development" (16.7%).

Beirut recorded a high percentage for "Good" (34.0%) and "Acceptable" (30.9%). In Mount Lebanon – suburbs, the highest rating was "Good" at 31.8%, followed by "Very Good" at 30.9%, "Acceptable" at 21.0%, with a small percentage of teachers rating the proficiency of teachers in applying social-emotional support programs as "Completely Inadequate" (4.3%), which is a positive performance rating. In Mount Lebanon (excluding suburbs), the highest percentage was also for the "Good" rating (33.7%), followed by "Acceptable" at 25.1%. The situation appeared acceptable in the North with 27.4%, slightly higher than the other ratings, and no notable differences between the answers.

However, the interesting point in this governorate was that about a quarter of the sample (24.8%) believed the situation "Needs Development," ranking second after the South (26.0%) and Akkar

(25.9%) which recorded the highest percentage in this category among all governorates, followed by Baalbek-Hermel (21.2%) and Bekaa (20.2%), which also recorded similar and notable percentages in the "Acceptable" ratings (33.1% and 27.7%, respectively). In Nabatieh and the South, teachers rated "Acceptable" at a high percentage (42.5% in Nabatieh and 35.5% in the South), which were the highest percentages in the two governorates.

The results show differences in how teachers evaluate their proficiency, both in terms of educational sectors and governorates, but the key finding is that teachers themselves recognize the need for support to master the implementation of social-emotional support programs.

Summary

The Questionnaire results regarding teachers' proficiency in implementing social-emotional support programs showed variation across sectors and governorates. In the public education sector, proficiency was generally considered "Needs Development," with relatively better performance in Beirut and clear challenges in the North, Bekaa, and Akkar. In private education (free and non-free), performance was generally better, especially in Beirut and the South. In the UNRWA sector, positive results were observed with a "Very Good" rating. Participants universally agreed on the need to develop competencies, especially in peripheral areas, with calls for enhancing training programs to enable teachers to effectively implement the developed curricula.

Analysis of the Results of the Question Regarding the Support Provided by the School Administration for the Use of Technology

Analysis of Principals Questionnaire Results

The question regarding the support provided to teachers for using technology included four points:

Item 1: Encouraging Teachers to Use Technology

The general results for this point showed the following indicators:

By governorates across all sectors, the North governorate ranked first in the number of schools encouraging teachers to use technology (46 schools), followed by Mount Lebanon (suburbs) (44 schools), then Mount Lebanon (excluding suburbs) (31 schools), then Akkar (28 schools), followed by the Bekaa and Nabatieh governorates (23 schools), then the South governorate (21 schools), followed by Beirut (15 schools), and finally Baalbek-Hermel, which recorded the lowest encouragement rate among all governorates in both the public and private sectors (14 schools).

In the public sector, the North governorate recorded the highest percentage of schools whose administrations encourage teachers to use technology (29 schools), followed by Akkar (20 schools), then Mount Lebanon excluding suburbs (18 schools). This indicates a focus on support in the neediest governorates.

Akkar also recorded the highest percentage of encouragement in the free private education sector (6 schools), followed by Mount Lebanon excluding suburbs (4 schools), then Mount Lebanon suburbs (3 schools), and the Bekaa (2 schools). Encouragement in the non-free private education sector was primarily concentrated in Mount Lebanon suburbs (30 schools), followed by the North governorate (11 schools), with encouragement distributed evenly across other governorates. The UNRWA sector showed the lowest percentage of encouragement for teachers to use technology, with only 4 schools, distributed between Mount Lebanon and the North, indicating clear challenges in this area.

It is noteworthy that the public sector shows the highest percentage of encouragement for using technology compared to other sectors, which is an indicator of the need for technology use and support in this sector.

It appears that the public sector provides most of the incentives at the general level, with a focus on northern and rural governorates such as the North and Akkar. Meanwhile, the non-free private sector focuses its support in high-population density governorates, such as Mount Lebanon. The free private sector provides limited support compared to other sectors, with notable variations between governorates. UNRWA provides a small contribution to encouraging teachers, mainly focusing on Mount Lebanon and the South.

Item 2: Providing Training for Teachers on Using Technology

School administrations in Mount Lebanon (suburbs) provide the highest percentage of training for teachers on using technology across all sectors (32 schools), followed by the North governorate (20 schools), then the Bekaa (16 schools), then Nabatieh (15 schools), followed by Mount Lebanon

excluding suburbs (14 schools), then the South (13 schools), Baalbek-Hermel (9 schools), then Akkar (8 schools), and finally Beirut (7 schools).

The North governorate leads in the public education sector, with the highest number of schools offering training for teachers to use technology (9 schools), followed by the Bekaa (7 schools), and then Beirut, Akkar, and Baalbek-Hermel where training is almost nonexistent (2 schools each). In the free private education sector, Nabatieh leads with the highest percentage of training availability (5 schools), while this training is absent from schools in Beirut. In the non-free private education sector, schools in Mount Lebanon suburbs excel (23 schools), followed by Beirut (5 schools). Results from the UNRWA sector did not provide indicators that could be relied upon.

Item 3: Technical Support Available to Solve Problems

In this point, Mount Lebanon (suburbs) leads across all sectors (21 schools), followed by the North and Nabatieh governorates in second place in terms of technical support (13 schools), then the South governorate (10 schools), followed by Mount Lebanon excluding suburbs (8 schools), then Baalbek-Hermel and the Bekaa with the same number (7 schools), then Akkar (5 schools), and finally Beirut, which also recorded the lowest percentage in the availability of technical support (4 schools).

At the sector level, the non-free private education sector records the highest percentage of technical support for teachers (49 schools), followed by the public education sector (27 schools), with Nabatieh governorate leading the support percentage (7 schools), then the North governorate (6 schools). Beirut and Mount Lebanon suburbs have the lowest numbers (one school each). The free private education sector shows a relatively equal distribution of technical support across all governorates.

Item 4: Allocating Time for Teachers to Use Technology

The North governorate leads with the highest percentages in this aspect across all sectors (27 schools), followed by Mount Lebanon (suburbs) (18 schools), then Nabatieh (17 schools), the Bekaa (13 schools), Mount Lebanon excluding suburbs (12 schools), followed by the South (11 schools), Beirut (8 schools), Akkar (6 schools), and finally Baalbek-Hermel, which shows the lowest percentage of allocated time for teachers to use technology during classroom teaching (5 schools).

The results from the public education sector indicate that priority in allocating time is given to teachers in the North (18 schools) and Nabatieh (10 schools), with Mount Lebanon (suburbs) (13 schools) in the non-free private education sector. Thus, the North and Mount Lebanon (suburbs) governorates lead in this area, with Beirut, the Bekaa, and the South in the middle of the list. Akkar and Baalbek-Hermel record the lowest percentages.

Analysis of Supervisors Questionnaire Results

The responses of supervisors to the four points included in the question are distributed as follows:

Item 1: Encouraging Teachers to Use Technology

The public sector recorded the highest percentage of encouraging teachers to use technology compared to both the non-free and free private education sectors, with a significant difference between it and the free private sector, which ranked lowest in the responses for this aspect. The North governorate leads the public sector results, aligning with the results of the principals above. Notably, Beirut recorded the lowest frequencies in both the public and private sectors, while the Bekaa and Nabatieh governorates outperformed other sectors in the public sector.

Item 2: Providing Electronic Educational Resources

At the sector level, the non-free private sector represents the highest percentages. Mount Lebanon (suburbs) recorded the highest percentage, with the non-free private sector ranking first, followed by the public sector.

The public sector recorded its lowest percentage in Mount Lebanon (excluding suburbs), followed by Beirut, indicating a lack of provision of electronic educational resources.

Item 3: Allocating Time for Teachers to Use Technology During Classroom Teaching

The public sector leads the results for this point, with the North governorate recording the highest results, followed by the non-free private sector in second place. The results from Beirut in the public sector are lower than those of the non-free private sector.

Item 4: Technical Support for Solving Technical Problems

The results indicate that the non-free private education sector records the highest level of technical support, compared to limited attention in the public sector. Mount Lebanon (suburbs) recorded the highest percentages, particularly in the non-free private sector, while support levels were limited in Beirut in the public sector and even lower in the non-free private sector.

Item 5: Providing Training for Teachers on Using Technology

The non-free private sector ranks first in providing training for teachers, followed by the public sector. Mount Lebanon (suburbs) recorded the highest percentage in schools of the non-free private education sector. As in previous areas, the results from Beirut were modest.

From the supervisors' responses, we conclude that the public sector provides the highest percentage in motivation and time allocation, with school administrations paying greater attention to encouraging teachers to adopt and use technology in education. Meanwhile, the non-free private sector excels in providing electronic educational resources, followed by technical support, and finally training.

In terms of governorates, Mount Lebanon (suburbs) and the North are the top performers in support. On the other hand, Beirut and Nabatieh governorates do not provide sufficient support for teachers. The North and Mount Lebanon (suburbs) show higher results in most areas. In summary, public education focuses on motivation and time allocation, while the private sector focuses on providing resources, technical support, and training.

Analysis of Coordinators Questionnaire Results

From the coordinators' responses to the question about the types of support, it appears that the most focus is placed on encouraging teachers to use technology, compared to other forms of support. This is particularly evident in the Bekaa and Akkar.

Item 1: Allocating Time for Using Technology

The North governorate topped the results for this point, followed by Mount Lebanon (suburbs).

Item 2: Providing Electronic Educational Resources

The results showed a variation between governorates, with Beirut and the Bekaa leading with moderate results for both, while Akkar, the South, and Nabatieh seem to have little to no focus on this area.

Item 3: Providing Training for Teachers

The highest percentages were recorded in the South, followed by Baalbek-Hermel.

Item 4: Technical Support for Solving Technical Problems

Beirut and Baalbek-Hermel recorded similar levels of technical support at moderate percentages, while support was much lower in the North and Bekaa. This indicates that technical support is not widespread across governorates and sectors, reflected in the modest percentages.

Analysis of Teachers Questionnaire Results

This question included five points, and the teachers responded based on preference. The results for these points are as follows:

Item 1: Encouraging Teachers to Use Technology

Motivation by Governorates

The North governorate recorded the highest number of teachers who believe the administration encourages teachers to use technology in the classrooms (327 teachers), indicating a strong focus on motivational efforts in this governorate. Mount Lebanon (suburbs) ranked second (284 teachers), followed by Akkar (214 teachers), the Bekaa (162 teachers), and both Mount Lebanon (excluding suburbs) and Nabatieh with the same number of teachers (156 teachers). In the South, 148 teachers reported being encouraged, while Baalbek-Hermel had the lowest number of teachers who chose this statement (97 teachers), reflecting a clear need for increased support in this governorate.

Motivation by Education Sector

The public sector recorded the largest number of teachers who felt encouraged to use technology in the classrooms (844 teachers), with a significant concentration of this percentage in the North governorate (212 teachers, the highest in the public sector) and Akkar (144 teachers).

The non-free private sector ranked second (595 teachers), with responses concentrated in Mount Lebanon (suburbs) (197 teachers, the highest percentage). The South recorded the lowest percentage (31 teachers). UNRWA's contribution to motivating teachers was very limited.

It can be inferred from the results of this statement that the public sector provides the majority of incentives at the general level, with a focus on northern and rural regions such as North and Akkar. Support is concentrated in the private non-fee sector in highly populated regions, such as Mount Lebanon. Free private sector offers limited support compared to other sectors, with noticeable variation between provinces. UNRWA provides a small contribution to incentivizing teachers, mainly concentrated in Mount Lebanon and the South.

Item 2: Allocating Time for Teachers to Use Technology in the Classroom

By Sectors

The results show that school administrations in the public sector allocate the most time, followed by administrations in the non-free private sector. On the other hand, the free private sector generally allocates less time, except in some governorates. The distribution is as follows:

The non-free private sector recorded the highest percentage of teachers who believe the administration allocates time for teachers to use technology in the classroom, with 301 teachers, followed by the public sector with 268 teachers, and the free private sector with 72 teachers.

The highest percentage in the public sector was recorded in the North (58 teachers) and Nabatieh (45 teachers), while the lowest was in Beirut (9 teachers). In the free private sector, the highest percentage was in Mount Lebanon (excluding suburbs) (23 teachers), with the lowest percentage in Beirut and Baalbek-Hermel. In the non-free private sector, the highest percentage was in Mount Lebanon (suburbs) (108 teachers), and the lowest was in the South (12 teachers).

By Governorates

Mount Lebanon (suburbs) recorded the highest percentage for time allocation (138 teachers), followed by the North (105%), then Mount Lebanon (excluding suburbs) (82 teachers), Nabatieh (75 teachers), and the Bekaa (64 teachers). The South and Akkar had the same number of teachers who felt time was allocated for technology use in the classroom (55 teachers each). Baalbek-Hermel recorded 37 teachers who saw time allocated for technology use. Beirut recorded the lowest percentage with 31 teachers.

Item 3: Technical Support Available to Solve Technical Problems

By Education Sectors

55% of teachers in the non-free private sector reported that the administration provides technical support, the highest percentage among the sectors. The highest percentage in this sector was in Mount Lebanon (suburbs) (192 teachers). In the public sector, the highest percentage was

in the North (37 teachers), and the lowest was in Beirut (7 teachers). In the free private sector, the highest percentage was in Mount Lebanon (suburbs) (15 teachers), and UNRWA showed very weak support.

It can be concluded that Mount Lebanon (suburbs) and the North receive the highest levels of technical support, indicating a concentration of resources in these governorates. Beirut, the South, and Baalbek-Hermel show the lowest allocation of technical support, especially in the public sector. The results indicate a discrepancy between sectors, with the non-free private sector providing the largest contribution in technical support, while UNRWA and the free private sector need to strengthen their support.

By Governorates

Teachers in Mount Lebanon (suburbs) and the North report the highest levels of technical support (131 teachers, or 25.1%, and 93 teachers, respectively). These are followed by Mount Lebanon (excluding suburbs) (62 teachers), the Bekaa (57 teachers), and Nabatieh (47 teachers). Meanwhile, Beirut (32 teachers, or 6.1% of the total) and the South (30 teachers) show very little technical support, with Baalbek-Hermel having the lowest percentage among the governorates (26 teachers).

Item 4: Providing Training for Teachers on Using Technology

By Education Sectors

School administrations in the non-free private sector provide the highest percentage of training for teachers (439 teachers, or 54.1%, the highest percentage), especially in Mount Lebanon (suburbs). The non-free private sector recorded the highest percentage of training for teachers (151 teachers), followed by the public sector (266 teachers, or 32.8% of the total). The highest contribution in the public sector was recorded in the North (60 teachers), while the lowest percentage was in Beirut (5 teachers). In the free private sector, the total percentage was 12.7%, or 103 teachers. The highest percentage in this sector was in Mount Lebanon (suburbs) (19 teachers), while the lowest contributions were in Beirut and Baalbek-Hermel (1 teacher each). UNRWA provides very limited training.

By Governorates

Mount Lebanon (suburbs) recorded the highest training rates (189 teachers, or 23.3%, the highest percentage), while Baalbek-Hermel had the lowest percentage of teachers (52 teachers) who felt the administration did not provide adequate training on using technology. Beirut recorded the lowest levels of training (53 teachers, or 6.5% of the total). The North ranked second in terms of providing teachers with training on using technology (133 teachers), followed by Mount Lebanon (excluding suburbs) (83 teachers), Nabatieh (82 teachers), Akkar (80 teachers), the Bekaa (79 teachers), and the South (60 teachers).

Item 5: Providing Electronic Educational Resources

By Governorates

Mount Lebanon (suburbs) dominates the distribution of electronic educational resources (110 teachers, or 21.7%, the highest percentage), followed by the North (103 teachers). The Bekaa and Mount Lebanon (excluding suburbs) are tied with 58 teachers each, followed by Nabatieh (55 teachers), Akkar (31 teachers), Baalbek-Hermel (30 teachers), and Beirut recorded the lowest levels (29 teachers, or 5.7%).

By Education Sectors

The non-free private sector provides the largest percentage of resources (46%, the highest percentage), with a clear focus on Mount Lebanon (suburbs) (84 teachers). Only 7 teachers in both the South and Akkar felt the administration provided electronic educational resources. In the public sector, 44.4% of teachers (225 teachers) believe the administration provides electronic educational resources. The highest percentage in the public sector was recorded in the North (58 teachers), and the lowest was in Beirut (8 teachers). In the free private sector, the total number was 47 teachers (9.3%), with Mount Lebanon (excluding suburbs) having the highest percentage of teachers who believe the administration provides these resources. The lowest contributions were recorded in Beirut and Akkar (1 teacher in each). UNRWA provides very limited resources.

The responses from teachers indicate that Mount Lebanon (suburbs) and the North have the highest percentage of educational resources, reflecting a concentration of efforts in these two governorates. Beirut, the South, Akkar, and Hermel recorded the lowest levels of resource provision, especially in the public and free private sectors. There is also a significant disparity between sectors, with the non-free private sector providing the largest share of support in all areas, while UNRWA needs to enhance its role in providing technical support, training, and resources.

There is a marked variation in the distribution of support between governorates and sectors, with some enjoying more support in terms of training and technologies compared to others, which suggests the need for more equitable allocation of resources.

Among the options for the support provided by school administrations to teachers, the statement "Encouraging teachers to use technology" was the most common form of support across all governorates and sectors. Public schools focus more on encouragement and allocating time for technology use in classrooms, but they suffer from a lack of resources or training compared to private schools.

The highest percentage of support was recorded in Akkar, in the public sector, with 56.6%.

Private non-free schools rely more on technology compared to public schools and provide broader support in terms of training, electronic resources, and technical support.

Summary

The results of the Questionnaires directed at principals, supervisors, coordinators, and teachers regarding the support provided for using technology show significant variation between governorates and educational sectors in Lebanon. In the area of "Encouraging teachers," the public sector leads with high encouragement, especially in the governorates of the North, Akkar, and Mount Lebanon (suburbs), while Beirut and Baalbek-Hermel show low rates. In "Providing Training," Mount Lebanon (suburbs) ranks first, followed by the North and the Bekaa, with notable weakness in Beirut. "Technical Support" is more prominent in the non-free private sector, especially in Mount Lebanon (suburbs), while the public sector shows weakness in most governorates. Finally, "Allocating Time for Teachers" is a priority in the public sector in the North and Nabatieh, with a clear decline in Beirut and Baalbek-Hermel.

Results of the Open- ended Question: What are the training needs related to technology that you consider essential for developing your skills as a teacher?

Teachers were asked an open-ended question regarding their training needs related to technology. After extracting the responses, most of which were similar and repetitive, the answers were categorized into broad themes, each covering specific sub-needs. These categories included: infrastructure and devices, technical skills, professional training and development, administrative support, and integrating technology into education.

Teachers requested training on the technological devices used in the teaching process, training on applications, development of digital content, and training on modern technologies such as artificial intelligence applications and data analysis. They also asked for technical support and infrastructure, as well as continuous training through regular courses and workshops.

It was found that there is a major need for training on using technology and electronic devices in education in the governorates of the North, Akkar, Baalbek-Hermel, and Nabatieh, with a lower degree of need in the governorates of Beirut, Mount Lebanon (suburbs and non-suburbs), the South, and the Bekaa in ascending order. The need for training on artificial intelligence applications was common among all teachers in all governorates, with a particular focus in Beirut and Mount Lebanon (non-suburbs). Almost all teachers in all sectors and governorates expressed a need for continuous training. The need for providing devices, internet access, and infrastructure was most prominent in Akkar, followed by Baalbek-Hermel, the South, the North, Nabatieh, the Bekaa, Beirut, and lastly, the governorates of Mount Lebanon, which appeared to have fewer major issues in providing devices, internet, and infrastructure. Teachers in all sectors and governorates require technical support, with additional emphasis on the peripheral governorates.

The needs mentioned above are essential for teachers' work to the extent that they cannot effectively teach without acquiring the technological skills that enable them to do so. Since technology has been widely integrated into the educational process in recent years, teachers should have been trained in its use, especially considering that they taught remotely during the COVID-19 pandemic. If they faced difficulties at that time due to schools' lack of preparedness to meet the minimum requirements, it is expected that efforts have been made to address this deficiency in

order to later focus on advancing technology topics, such as training on artificial intelligence applications and improving infrastructure.

The developed curricula rely heavily on the use of technology, dedicating significant space to it. While interviews with students, educational officials, and curriculum developers focused on digital content and integrating technology into education, it is assumed that these efforts should have been preceded by basic steps: preparing teachers technologically and meeting their essential technological needs so that they can progress to the subsequent stages.

Results of the Open-ended Question addressed to School Supervisors: What are the training needs related to technology that you consider essential for developing your skills?

An open question was posed to school supervisors regarding their training needs related to technology. After collecting responses, the answers were classified into categories that covered homogeneous types of needs. These categories were centered around major themes. Notably, some of the supervisors' answers combined training needs with the availability of technological devices, so responses that did not pertain to the needs were excluded. The following conclusions were drawn:

There is an urgent need for supervisors to attend courses in information technology and computer programs (the most frequently mentioned in the responses). Additionally, there is a need for training in educational technology (e-learning platforms and interactive boards), as well as specialized courses in using technology for administration and communication, including organizing activities, class schedules, and communicating with parents. There is also a demand for specialized technical support to ensure the effectiveness of training, as well as a need for ongoing training to keep up with technological developments. Training in artificial intelligence and advanced technologies, including sophisticated software tools to better support education and training, is also necessary. Furthermore, supervisors expressed a need for training in remote education (training in remote learning tools), as well as specialized courses in teaching soft technological skills (managing communication and using digital tools). Additional needs include training in printing and software, specialized courses in using educational technology and interacting with digital media, and lastly, supervisors indicated a need for training that has both administrative and technical aspects.

It seems that supervisors' emphasis on the necessity of these courses indicates that they are not proficient in the skills provided by such courses. This creates the impression that supervisors in both the public and private sectors lack professional preparation and are not adept at dealing with modern methods and technological tools. This places their role in the school outside the knowledge-based and contemporary framework required by the developed curricula, which also demands a certain level of professional and technological preparedness for other school staff members.

Summary: Answer to Research Question 3 (Human Factors Affecting School Readiness)

Examining the perspectives of principals, supervisors, coordinators, and teachers on the influence of human factors on school readiness for implementing the developed curricula revealed notable differences in how these factors affect the readiness of public schools compared to private schools. The data showed a lack of training and technical support for teachers in the public sector, particularly in peripheral governorates such as the North, Akkar, and Baalbek-Hermel, where the most common responses identifying training and technical support as "in need of development" and "completely inadequate" were reported. In contrast, the private sector (both free and non-free) showed much better performance, with higher percentages of "good" and "very good" ratings, especially in the governorates of Beirut and Mount Lebanon (both regions). Additionally, the public sector faces challenges with teachers' proficiency in applying remedial support programs and emotional social support, while the private sector, particularly the non-free sector, performs positively in terms of proficiency.

From a material perspective, the results indicate that public schools face significant challenges related to the maintenance and updating of electronic devices. The categories "in need of development" and "completely inadequate" were the most common, with the private sector showing clear superiority in this area, particularly in Beirut and Mount Lebanon. Furthermore, the public sector suffers from a shortage of technical support teams dedicated to dealing with technology, which exacerbates the gap between the public and private sectors. This calls for urgent solutions in the public sector, including enhancing training, providing technical support teams, and updating infrastructure to achieve readiness for implementing the developed curricula.

The results scientifically indicate that the human factors' readiness is weak in the public sector and requires serious interventions to enhance capabilities, while the private sector is closer to readiness, though not fully complete.

To cross-check the results of the Questionnaires on Research Question 3 regarding the impact of human factors on school readiness to implement the developed curricula, two open questions were posed to teachers and supervisors about the training needs related to technology that they consider essential for developing their skills. The findings showed that the human factors affecting the readiness of public schools to implement the developed curricula are primarily linked to the ability of teachers and supervisors to handle technology and meet the required training needs.

The responses revealed that teachers in the public sector suffer from a significant lack of technological skills, with an urgent need for training on the use of educational devices, applications, digital content development, and modern technologies like artificial intelligence and data analysis. It was evident that peripheral governorates, such as Akkar, the North, and Baalbek-Hermel, suffer more from a lack of training and technical support compared to other governorates.

As for the supervisors, their need for courses in information technology, using e-learning platforms, and administrative technology (such as managing activities and class schedules) emerged. They also requested specialized courses in artificial intelligence and remote learning tools, reflecting a general weakness in professional and technical preparation.

The results of the open questions indicated that the training needs are not supplementary but essential for enabling school staff to keep up with the requirements of the developed curricula, which heavily rely on technology. The lack of providing these trainings weakens the ability of public schools to implement these curricula compared to the private sector, which enjoys higher readiness.

Material Factors Affecting Public Schools' Readiness to Implement the Developed Curricula

The second part of the third research question included several points related to material factors such as the availability of interactive whiteboards, projectors, computers, as well as facilities like laboratories, libraries, and playgrounds. Additionally, the availability of facilities and services for learners with special needs was also addressed. The questions were answered by principals, supervisors, coordinators, and teachers. The responses were presented by identifying these factors in both the public and private sectors, according to the governorates, followed by a comparison between the sectors to identify the areas of impact for these factors and a summary of the results from the four Questionnaires for each item in the question. The answers for each item were as follows:

Answering the Question: The Availability Technological Tools in Classrooms

Item 1: Availability of Projectors (LCD) in Each Educational Cycle

In the Kindergarten Stage

The data showed clear variations in the availability of LCD projectors between different sectors (public, private free, private non-free, and UNRWA schools), reflecting varying challenges depending on the sector and governorate.

In the public sector, principals reported a clear shortage in Beirut, where 50% of classrooms lack devices, with significant variations in other governorates. Mount Lebanon (suburbs) recorded the highest shortage percentage at 54.5% for devices "not available (on demand)", while Baalbek-Hermel showed the best percentage at 36.4% for devices "fully available." Coordinators emphasized continued challenges, particularly in Bekaa and Baalbek-Hermel, where shortages were evident. Teachers reported that the full supply rate was 34% in Beirut, with noticeable shortages in the North and South.

In the private free sector, the data shows high supply rates, with Beirut at 100% availability, and a notable advantage in the South. Principals and supervisors confirmed the availability of adequate equipment in most schools, while teachers reported moderate availability in the North and South.

In the private non-free sector, performance was better than the public sector, with supply rates reaching 80% in Mount Lebanon (excluding suburbs) and 42.9% in the South. Supervisors and

coordinators confirmed relatively high supply rates, with Beirut and Mount Lebanon outperforming other governorates.

In UNRWA schools, the North faced a severe shortage, with 100% of devices "not available," while the South showed a slight improvement with 50% of devices "available in most classrooms." Teachers and coordinators explained that UNRWA schools face significant challenges, making them the least equipped among the sectors.

Overall, the private sector, both free and non-free, had better availability of equipment compared to the public sector. However, UNRWA schools still face a significant shortage, negatively affecting the educational process in most governorates.

In the First Cycle of Basic Education

Principals in the public sector reported complete availability of devices at 46.9%, with a total lack in 16.3% of schools. Supervisors confirmed full availability at 37.3%, while 15.2% of schools rely on alternative solutions. Coordinators reported a 33.9% full availability rate, with some schools depending on partial availability at 27.1%. Teachers reported a full availability rate of 43.2%, with a shortage in 12% of classrooms.

In the private free sector, principals reported complete availability of devices at 26.7%, while supervisors noted 29%. Coordinators showed significant variations, with availability rates ranging between 33.3% and 52.4% across governorates. Teachers stated the full availability rate at 30.6%.

In the private non-free sector, principals reported complete availability of devices at 32.7%. Supervisors confirmed a higher rate of 37.6%, while coordinators mentioned some governorates reaching 60%. Teachers noted a full availability rate of 35.4%.

In UNRWA Schools, the principals reported that 50% of the schools provide devices completely, with variations between governorates. Supervisors indicated a severe shortage, as 66.7% of the schools lack devices, while coordinators and teachers confirmed clear disparities depending on the location.

Regarding the governorates, principals stated that Beirut recorded a complete availability rate of 27.8%, while Mount Lebanon (excluding suburbs) outperformed with 59.4%. In the North, the availability rate was 38.2%, while Bekaa showed better performance at 48%. In the South and Nabatieh, the rates were 36% and 32.1%, respectively, with Akkar recording the lowest at 28.6%, and Baalbek-Hermel at 57.9%.

Supervisors confirmed that the free private sector in Beirut had full availability (100%), while Mount Lebanon suburbs faced a significant shortage at 29.4%. The North recorded 47.4%, and Bekaa, the South, and Nabatieh showed medium availability, with major challenges in Akkar and Baalbek-Hermel.

The coordinators' results indicated that Beirut recorded a full availability rate of 33.3% in public schools, while Mount Lebanon suburbs reached 41.2%. The North suffered from a low rate of 33.9%, while Bekaa showed significant improvement at 60%. The South recorded 52.4%, with significant challenges in Akkar and Baalbek-Hermel.

Teachers reported that full availability in Beirut was 30%, with better performance in the non-free private sector. In Mount Lebanon suburbs, the availability rate reached 58.3%, while in the North, it was 43.7%. Bekaa recorded 52%, and the South 51.6%, while Nabatieh recorded 33.9%. Akkar and Baalbek-Hermel continued to face a significant shortage, with the lowest equipment availability rates among the governorates.

In the Second Cycle of Basic Education

In the public sector, the availability of LCD projectors varied significantly between governorates according to the principals, supervisors, coordinators, and teachers. The principals indicated that Beirut had a good availability rate of 50%, while Mount Lebanon suburbs faced significant challenges at 36.4%. Bekaa stood out with the best availability at 76.9%, followed by Baalbek-Hermel at 63.6%, while the North recorded 45.7%. Supervisors confirmed similar results, with Nabatieh at 56.5% and Bekaa at 50%, while Baalbek-Hermel suffered a sharp decline at 17.6%.

In the free private sector, principals reported that Beirut achieved full availability (100%), while Baalbek-Hermel suffered a complete lack of devices. Supervisors indicated a high availability rate in Mount Lebanon suburbs at 75%, while the sector overall faced a severe shortage in classroom equipment. In the non-free private sector, principals and supervisors agreed on Mount Lebanon's excellence, with principals reporting a good rate, while supervisors recorded 83.3%. Akkar stood out with 0% according to supervisors.

The coordinators' opinions reflected a similar disparity, with Beirut recording 33.3% in the public sector, while Mount Lebanon and Bekaa showed good availability rates of 41.2% and 60%, respectively. The free private sector showed good availability in Mount Lebanon, while the non-free private sector showed encouraging availability in the North and Mount Lebanon.

Teachers clarified that Beirut recorded 33.3% in the public sector, while the free private sector recorded 50%. Mount Lebanon suburbs recorded 58.3% of fully equipped classrooms in the public sector, while the non-free private sector recorded 41.9%. Bekaa showed good performance at 53.1%, while the South recorded 54.9% of fully available classrooms in the public sector.

Overall, the public sector faces significant disparities between governorates in terms of projector availability, while the free private sector shows a general lack, and the non-free private sector stands out as the best equipped, particularly in Mount Lebanon.

Regarding the governorates, the public sector results indicated notable variations in projector availability, according to principals, supervisors, coordinators, and teachers. Principals confirmed that Beirut recorded a good availability rate of 50%, while Mount Lebanon suburbs had a very low rate of 27.3%. Bekaa topped the rankings with high availability rates at 76.9%, followed by Baalbek-Hermel at 63.6%. In the free private sector, principals noted that Beirut achieved full availability (100%).

For the supervisors, Nabatieh stood out as the best governorate in the public sector with an availability rate of 56.5%, while Baalbek-Hermel recorded a very low rate of 17.6%. In the free private sector, Mount Lebanon suburbs excelled with a rate of 75%. In the non-free private sector, Mount Lebanon (excluding suburbs) demonstrated impressive performance with a rate of 83.3%.

Coordinators' opinions confirmed a similar disparity in the public sector, where Beirut recorded 33.3% of fully equipped classrooms, while Mount Lebanon reached 41.2%. Bekaa maintained its excellent performance with 60%. In the free private sector, Mount Lebanon led with an availability rate of 80%. The non-free private sector showed good performance in the North, with governorates there recording good availability rates.

From the teachers' perspective, the public sector in Beirut recorded an availability of 33.3%, while in Mount Lebanon (suburbs), the rate increased to 58.3%. Bekaa showed a good level of availability at 53.1%. Overall, there are significant variations in projector availability between governorates and sectors, with the free private and public sectors showing better performance compared to the public sector in some governorates.

In the Third Cycle of Basic Education

Regarding supervisors, the data showed that the public sector achieved relatively good availability rates in some governorates, such as Nabatieh, which recorded the highest availability rate of devices at 60.9%. In the free private sector, Beirut and Baalbek-Hermel faced severe shortages of devices. In the non-free private sector, Mount Lebanon (excluding suburbs) performed best, with equipment availability at 80%. UNRWA schools faced severe shortages of devices, with absence rates reaching 66.7% in many classrooms.

For the coordinators, the data pointed to clear challenges in some governorates. In the public sector, Beirut and Mount Lebanon suburbs showed low availability rates, while the South and Bekaa performed better comparatively. The non-free private sector recorded the best availability rates, with 83.3% of classrooms in Mount Lebanon (excluding suburbs) fully equipped. In UNRWA schools, the situation was worse, with significant disparities between governorates and almost complete absence of devices in most classrooms.

For teachers, in the public sector, governorates such as Mount Lebanon (suburbs) and Nabatieh showed relatively good equipment availability rates, ranging from 43.7% to 61.7%. In the free private sector, Beirut and Baalbek-Hermel faced complete device shortages, while governorates such as the South recorded better availability rates. In the non-free private sector, teacher equipment rates were high in Mount Lebanon (excluding suburbs), with 83.3%. UNRWA schools continued to record the lowest results, with almost complete absence of devices in most classrooms.

In the Secondary Stage

In the public sector, Beirut recorded an availability of devices at 50% of fully equipped classrooms, representing a moderate rate compared to other governorates. Mount Lebanon (suburbs) faced significant challenges, with classrooms unavailable (under request) at 36.4%. In the North, the rate of unavailable classrooms reached 22.9%, indicating clear equipment shortages. On the other hand, Bekaa was the most distinguished, recording 61.5% of fully equipped classrooms, showing significant investment in technological infrastructure there. On the supervisory level, the availability rate of LCD projectors was approximately 50%, indicating moderate support for their role in educational supervision. For coordinators, the rate was lower at 35%, reflecting challenges

in providing tools supporting coordination. Teachers recorded the lowest rate at 20%, indicating a significant lack of technological tools to support improving education quality.

In the free private sector, data showed significant variations between governorates. In Beirut, all classrooms were fully unavailable at 100%, indicating a complete lack in this area. Mount Lebanon (suburbs) recorded relatively better results, with classrooms fully available at 50%. In the North, the situation was more deteriorated, with a rate of unavailability at 83.3%. On the other hand, Bekaa and the South showed more balanced rates. For supervisors, the availability rate in this sector was approximately 60%, a better level than in the public sector, indicating a greater focus on supporting supervision. For coordinators, the rate was 45%, reflecting a moderate level of technological support. Teachers recorded 30%, a relative improvement compared to the public sector but still far from the desired level.

In the non-free private sector, the best performance was recorded across all sectors. In Mount Lebanon (excluding suburbs), 80% of classrooms were fully equipped, indicating significant technological investments. Beirut and the North showed a balanced distribution between partial and full availability, while the South recorded a lower full availability rate of 14.3%. On the supervisory level, the availability rate was 80%, reflecting strong support for their role. For coordinators, the rate was 70%, indicating good availability to support coordination. Teachers recorded 60%, demonstrating this sector's superiority in providing technological support.

In UNRWA schools, challenges were extremely clear, showing severe shortages of projector devices. In Mount Lebanon suburbs, all classrooms were partially equipped at 100%. In the North, a complete lack of devices was apparent at 100%.

In the South, the situation was more balanced, with 50% of classrooms partially equipped and 50% unavailable. For supervisors, the availability rate of devices was only 25%, reflecting a severe shortage of resources allocated to this role. For coordinators, the availability rate was even lower at 20%, indicating significant challenges in supporting the coordination process. Teachers recorded the lowest rate at 10%, demonstrating a severe lack of technological tools needed to support education.

Regarding the governorates, clear disparities in availability rates were observed. In Beirut, the availability of LCD projectors for supervisors was 70%, while coordinators had 60% and teachers 50%. In Mount Lebanon, the data showed that supervisors reported an availability rate of 65%, coordinators 55%, and teachers 40%. In the North, the rates were lower, with 50% for supervisors, 40% for coordinators, and only 30% for teachers. In Bekaa, the availability rates were lower, with supervisors at 45%, coordinators at 35%, and teachers at 25%. In the South, the situation was relatively better, with availability rates of 60% for supervisors, 50% for coordinators, and 40% for teachers. In Nabatieh, the rates were 55% for supervisors, 45% for coordinators, and 35% for teachers, reflecting the urgent need to improve technological support across various governorates and job levels.

General Conclusions on LCD Projector Availability

In the kindergarten stage, the results indicate a significant disparity in the availability of LCD projectors across sectors and governorates. Public schools and UNRWA schools suffer from major shortages compared to non-free private schools, creating gaps in the quality of education between urban and rural governorates. Rural governorates like Akkar and Baalbek-Hermel face significant challenges, while Beirut and Mount Lebanon enjoy better availability rates, deepening the educational gap.

In the first cycle of primary education, the data show that the public sector suffers from low preparation rates at 46.9%, while the non-free private sector recorded better preparation rates, reaching 60%. Rural governorates such as Akkar and Baalbek-Hermel recorded the lowest preparation rates, while Bekaa showed relatively good performance. UNRWA schools face severe shortages, with 66.7% of their schools lacking devices entirely, significantly impacting the quality of education for refugee children.

In the second cycle of primary education, the analysis reveals a clear disparity in projector availability between sectors. The public sector shows improvements in some governorates such as Nabatieh and Bekaa, while governorates like Baalbek-Hermel and Mount Lebanon suburbs suffer from significant shortages. The free private sector shows varied performance, with better availability in Mount Lebanon and the suburbs of Beirut, but notable shortages in governorates like Baalbek-Hermel. UNRWA schools continue to face severe shortages of devices, requiring an improvement in the distribution of educational resources.

In the third cycle of primary education, it is clear that Mount Lebanon (excluding suburbs) achieves the best preparation rates, while Beirut and Baalbek-Hermel face severe shortages. The non-free private sector stands out as the best equipped compared to the public and free sectors, with governorates like Mount Lebanon showing excellent performance. Meanwhile, UNRWA schools continue to face significant challenges, reflecting a lack of the necessary infrastructure to improve education quality.

In the secondary stage, there is an improvement in some governorates like the South, Bekaa, and Mount Lebanon, while other governorates such as Beirut, Akkar, and the North suffer from major shortages. The non-free private sector continues to provide the best preparation rates, with notable superiority in Mount Lebanon. However, UNRWA schools remain in a poor state due to severe resource shortages, requiring ongoing efforts to improve educational conditions and ensure equal opportunities for all students across governorates.

Item 2: Availability of Interactive Boards (Active Board)

In the Kindergarten Stage

In the public sector, the Questionnaire results from school principals revealed that many schools suffer from significant shortages in the availability of interactive boards, with their complete absence in some governorates such as Beirut, where the rate of complete absence reached 79.7%, and Mount Lebanon at 65.8%. In other governorates like the South (52.3%) and Bekaa (60.4%), interactive boards are only partially available. In free private schools, Beirut and the

South suffered most from the lack of interactive boards, with Beirut recording a shortage rate of 85.2% and the South 72.1%. However, some improvement was observed in governorates like Mount Lebanon, which recorded a shortage rate of 68.7%. The principal also mentioned that the non-free private sector showed a more balanced distribution of interactive boards, but it still suffers from notable shortages in some governorates, where the shortage rates ranged between 33% and 44.5%.

For supervisors, the collected results showed that the public sector faces significant shortages in interactive boards, with about 79.7% of schools lacking boards. The need to intensify efforts to provide this technology in the future is urgent. It also shows that both free and non-free private education suffer from significant shortages in interactive boards, with the percentages ranging from 65.8% to 77.4% of schools lacking these devices.

Regarding coordinators, the results indicate a significant disparity in the availability of interactive boards across governorates. In Beirut, the public sector suffers from a severe shortage, with 53.3% of classrooms lacking interactive boards, while the situation was relatively better in governorates like Mount Lebanon (48.9%) and some governorates in Bekaa (45.2%). In free private education, Beirut recorded a shortage of 85.2% and the South 72.1%, while some improvements were observed in Mount Lebanon, where interactive boards were partially available in 68.7% of schools.

For teachers, the results showed that about 41.8% of classrooms in the public sector were not equipped with interactive boards. In free private education, the percentage rose to 44.5%, while in the non-free private sector, it was slightly lower at 33%. This shortage reflects the significant challenges faced by the education sector in providing these devices in schools across most governorates, especially in Beirut, which recorded the highest shortage rates.

When comparing these results by governorates, in Beirut, principals reported a severe shortage of interactive boards, stating that 79.7% of schools lacked these devices. Supervisors also mentioned that availability in Beirut was very low, with many schools completely lacking interactive boards. Coordinators noted that 79.7% of schools in the public sector and 85.2% in the free private sector in Beirut were facing a major shortage of interactive boards, while teachers added that Beirut is among the most affected governorates, with 79.7% of classrooms lacking interactive boards.

In Mount Lebanon suburbs, principals indicated that the governorate suffered from a 65.8% shortage in the availability of interactive boards. Supervisors stated that there was a significant shortage in Mount Lebanon suburbs. The results from coordinators revealed disparities in the distribution of interactive boards in Mount Lebanon suburbs, with partial availability in some areas. Teachers confirmed that Mount Lebanon suburbs also faced a significant shortage, with a 65.8% lack of interactive boards.

In the North, principals reported that schools in the governorate suffer from a significant shortage of 72.5% in interactive boards. Supervisors confirmed the substantial shortage in the availability of interactive boards in the governorate, while coordinators noted that the North recorded partial

shortages in interactive boards in some schools. Teachers showed that the North suffers from a severe shortage of 72.5% in the availability of interactive boards.

In Bekaa, principals mentioned that the region achieved a relatively better availability of interactive boards, with 45.2% of principals reporting partial availability. Supervisors indicated that Bekaa had a relatively good availability compared to other governorates. Coordinators highlighted that Bekaa showed a better distribution of interactive boards at 45.2%. Teachers also confirmed, with 45.2%, that Bekaa was one of the governorates that showed notable improvements in the availability of interactive boards.

In the South, principals pointed out that the governorate suffers from a shortage of 52.3% in the availability of interactive boards. Supervisors confirmed that the South recorded a severe shortage of 72.1% in the availability of interactive boards. Coordinators also confirmed that the South faces partial shortages in the availability of interactive boards, with a rate of 72.1%. Teachers pointed out that the South recorded a relative improvement, with a shortage rate of 52.3%.

In UNRWA schools, principals reported a total lack of interactive boards in most governorates, with complete absence in kindergarten classes. Supervisors added that UNRWA schools lack interactive boards, with significant shortages in many governorates. Coordinators noted that UNRWA schools face major challenges in the availability of interactive boards, with severe shortages in some governorates. Teachers indicated a complete absence of interactive boards in most UNRWA schools, with partial availability in a few limited governorates.

From this comparison, it is clear that Beirut, Mount Lebanon suburbs, and the North are among the governorates most affected by the shortage of interactive boards, while Bekaa and the South show relative improvements.

In the First Cycle of Basic Education

In the public sector, principals reported that 44.9% of schools lack interactive boards, and 43.5% are on-demand, meaning that 88.4% of schools are either not equipped or need to be equipped. Supervisors confirmed that 39.6% of schools lack interactive boards, 35.9% are on-demand, and only 5.1% are fully equipped in most classrooms. Coordinators indicated that 25-40% of schools lack equipment, while 45-55% offer partial services, and 15-20% offer full services. Teachers pointed out that 40.6% of classrooms lack interactive boards, with variations between governorates.

In the free private sector, principals reported that 43.3% of schools lack interactive boards, with improvements in some governorates like Baalbek-Hermel, where 33.3% are fully equipped. Supervisors confirmed that 54.8% of schools do not have interactive boards, 19.4% are on-demand, and only 6.5% are fully equipped. Coordinators clarified that 70-90% of schools suffer from shortages, especially in Beirut, which recorded a 100% shortage. Teachers' results showed that 46.9% of classrooms lack interactive boards, with very low equipment rates.

In the non-free private sector, principals reported that 44.9% of schools lack interactive boards, with better performance in Beirut and Mount Lebanon, where the equipment rate reaches 22%. Supervisors indicated that 35.9% of schools lack interactive boards, 29.9% are on-demand, and

14.5% are fully equipped. Coordinators reported that 25-33% of schools suffer from shortages, with 60% providing partial services. Teachers clarified that 35% of classrooms lack interactive boards, with higher equipment rates compared to the public and free private sectors.

In UNRWA schools, principals reported that 25% of schools are equipped in most classrooms, while supervisors confirmed that 100% of schools lack interactive boards. Coordinators and teachers did not provide detailed information about UNRWA.

Comparing the governorates

Beirut showed a significant shortage, with principals stating that 50% of schools lack interactive boards, and 37.5% are on-demand. In Mount Lebanon suburbs, principals reported that 27.3% of schools lack interactive boards. Bekaa, the South, and Nabatieh suffered from varying shortage rates, with partial availability in some governorates. Akkar recorded high shortage rates, with 55% on-demand. Baalbek-Hermel was the least equipped, with principals reporting that 63.6% of schools lack interactive boards.

In the Second Cycle of Basic Education

The results, by sector, indicate that in the public sector, principals reported that 40.1% of schools lack interactive boards, and 35.9% are not available but are on demand, meaning that 76% of schools suffer from a shortage of this technology. Supervisors confirmed that 40.1% of schools lack interactive boards, and 35.9% are on demand, with only 5.5% having interactive boards in all classrooms. Coordinators reported that the unavailability rates range between 32.3% and 40%, with partial availability of up to 60% in some governorates, and noted significant variation in the distribution of boards among classrooms. Teachers reported that 39.2% of classrooms lack interactive boards, with significant variation between governorates, with some governorates having unavailability rates of up to 50%.

In the free private sector, principals stated that 54.8% of schools lack interactive boards, with 19.4% on demand, meaning that 74.2% of schools lack this technology. Supervisors reported that 54.8% of schools lack interactive boards, and 19.4% are on demand, with only 6.5% having interactive boards in all classrooms. Coordinators mentioned that the unavailability rate in this sector reaches 100% in some governorates, such as Beirut, with partial availability in other governorates ranging from 25% to 50%. Teachers pointed out that 46.9% of classrooms lack interactive boards, with the unavailability rate reaching 67.5% in some governorates.

In the non-free private sector, principals reported that 35% of schools lack interactive boards, with 31.6% on demand, and 14.5% of schools provide interactive boards in all classrooms.

Supervisors found that 35% of schools lack interactive boards, with only 14.5% having interactive boards in all classrooms. Coordinators indicated that unavailability rates in this sector range from 25% to 50%, with partial availability in most governorates. Teachers noted that 35.1% of classrooms lack interactive boards, with only 13.3% of classrooms fully equipped.

In UNRWA schools, principals reported that the unavailability rate of interactive boards is 100%. Supervisors confirmed that 100% of UNRWA schools lack interactive boards, reflecting a severe shortage of technological equipment. Coordinators and teachers did not provide information about the availability of boards in UNRWA schools, and no separate statistics were given for these schools.

Distribution of results by governorates

In Beirut, principals reported that 50% of classrooms lack interactive boards, with 37.5% on demand, and there was a complete absence of categories like "Available in most classrooms" or "Available in all classrooms." Supervisors said that 27.3% of schools lack interactive boards, with a large portion on demand, reaching 47.8%. Coordinators mentioned that 40% of classrooms lack interactive boards, with 60% offering partial availability. Teachers indicated that 50% of classrooms in the public sector are not equipped with interactive boards, and 40% in the private sector.

In Mount Lebanon (suburbs), principals mentioned that 63.6% are on demand, with a complete absence of full availability. Supervisors stated that 47.4% of schools lack interactive boards, with a very small portion fully equipped. Coordinators reported that 25% of classrooms lack interactive boards, with 50% offering partial availability and 25% available in most classrooms, reflecting a more balanced distribution. Teachers' results showed that 35% of classrooms are not equipped with interactive boards, with 5% fully equipped, and significant variation between schools.

In the North, principals stated that 57.1% are on demand and 5.7% are fully equipped, with plans to increase equipment. Supervisors mentioned that 47.4% of schools lack interactive boards, with only a small portion fully equipped. Coordinators reported that 32.3% of classrooms lack interactive boards, with 48.6% offering partial availability and 13.5% fully equipped, with plans to improve equipment. According to teachers, 40.4% of classrooms lack interactive boards, with 9.6% fully equipped.

In Bekaa, principals reported that 7.7% of schools have interactive boards in most classrooms, with a large portion on demand. Supervisors noted that 44.4% of schools are on demand, indicating future plans to equip schools. Coordinators mentioned that 25% of classrooms lack interactive boards, with 70% offering partial availability. Teachers reported that 32.7% of classrooms are not equipped with interactive boards, with 11.2% fully equipped.

In the South, principals reported that 35.7% of schools lack interactive boards, with 35.7% offering partial availability, and no full availability. Supervisors found that 35.7% of schools are on demand, with 50% in the free private sector. Coordinators reported that 35.7% of classrooms lack interactive boards, with 35.7% offering partial availability, and no full availability. Teachers indicated that 32.8% of classrooms are not equipped with interactive boards, with 9.8% fully equipped, and plans to improve availability rates.

In Akkar and Nabatieh, the percentages are similar to those in other governorates, with a tendency toward a greater shortage of equipment compared to other regions.

In the Third Cycle of Basic Education

Looking at the results by sector, principals in the public sector reported that 44.9% of schools lack interactive boards, and 43.5% are on demand, meaning that 88.4% of schools face a significant shortage of interactive boards. Supervisors stated that 39.2% of schools lack boards, and 35% are on demand, with only 5.5% having interactive boards in all classrooms. Teachers mentioned that 39.5% of classrooms lack interactive boards.

In the free private sector, principals reported that 43.3% of schools lack interactive boards, with a better rate in some governorates, such as Baalbek-Hermel, where the percentage of boards available in all classrooms reaches 33.3%. Supervisors pointed out that 54.8% of schools lack interactive boards, 25.8% are on demand, and only 3.2% have boards in all classrooms. Teachers reported that 47.8% of classrooms lack interactive boards.

In the non-free private sector, principals stated that 44.9% of schools lack interactive boards, with better performance in Beirut and Mount Lebanon suburbs, where the percentages are 22.2% and 21.2%, respectively. Supervisors mentioned that 36.8% of schools lack interactive boards, 31.6% are on demand, and 13.7% have boards in all classrooms. Teachers reported that 34.5% of classrooms lack interactive boards, with only 12.7% fully equipped.

In UNRWA schools, principals stated that 25% of schools have interactive boards in most classrooms, while supervisors confirmed that 100% of UNRWA schools lack interactive boards, reflecting a complete shortage of this equipment.

Distribution of results by governorates

In Beirut, principals reported that 50% of schools lack interactive boards, and 37.5% are on demand. Supervisors stated that the largest percentage of schools in Beirut lack interactive boards. Teachers indicated that 40% of classrooms in the public sector lack interactive boards, 50% in the free private sector, and 47.5% in the non-free private sector.

In Mount Lebanon (suburbs), principals stated that 27.3% of schools lack interactive boards, and 63.6% are on demand. Supervisors noted that a high percentage of schools in this governorate lack interactive boards. Teachers mentioned that 33.3% of classrooms in the public sector lack interactive boards, 37.8% in the free private sector, and 28.8% in the non-free private sector.

In Mount Lebanon (outside the suburbs), principals reported that 50% of schools lack interactive boards, and 44.4% are on demand. Supervisors noted that the best results were in the free private sector, where 25% of schools are fully equipped. Teachers mentioned significant variation in coverage rates between different sectors.

In the North, principals reported that 37.1% of schools lack interactive boards, and 51.4% are on demand. Supervisors noted that there are low availability rates across all sectors. Teachers indicated that there are high percentages of classrooms lacking interactive boards in all sectors.

In Bekaa, principals reported that 53.8% of schools lack interactive boards, and 38.5% are on demand. Supervisors noted that the best results were in the non-free private sector, with 28.6% of schools fully equipped. Teachers mentioned that 32.7% of classrooms in the public sector lack interactive boards, 41.2% in the free private sector, and 21.4% in the non-free private sector.

In other governorates such as the South, Nabatieh, Akkar, and Baalbek-Hermel, the unavailability rates varied between 35% and 63.6%, depending on the governorate and sector, with low percentages of full coverage in most of these regions.

In the Secondary Stage

In the public sector, the availability and use of interactive boards varied across governorates. In Beirut, 50% of classrooms were without boards, while the partial availability was low. Baalbek-Hermel experienced the best availability rates, reaching 23.5%. Overall, 42.5% of teachers reported the absence of interactive boards, while only 22.3% mentioned daily use.

In the free private sector, schools suffer from a severe shortage of interactive boards, especially in the South, where the absence rate was 100%. Overall, 69.6% of teachers reported that the boards were unavailable, and only 9.5% said they were partially available, with low usage as 34.7% stated they did not use them at all.

In the non-free private sector, the availability rates were relatively higher, especially in Beirut and Mount Lebanon, where 43.1% of teachers reported partial availability of the boards, with a daily usage rate of 21.9%.

In the UNRWA sector, 60.4% of schools were without interactive boards, and 39.6% reported partial availability. The usage rate was low, with 35.1% of teachers never using the boards, and only 16.1% using them daily.

Distribution of results by governorates

Beirut experienced relatively higher availability of boards, with 60%, while 70% of teachers there needed additional training. In Mount Lebanon, the availability rates ranged between 50% and 55%, with 65% of teachers needing training. In the South and Nabatieh, availability was low, with only 50% to 40% of schools equipped with boards, and a significant lack of training remained a major barrier.

In the North and Bekaa, the rates were low, with principals reporting that about 40% of schools had boards, and a significant deficiency in teacher training was noted. Akkar showed very low availability rates, with 50% to 70% of schools without boards, and a near-total absence of full equipment.

In the free private sector, Nabatieh and Akkar were among the most affected governorates, with 75% to 85% of schools lacking interactive boards. The non-free private sector showed relatively better availability rates, especially in Beirut and Mount Lebanon, but still faced major challenges in the North and Bekaa.

General Conclusions for the availability of Active Boards

The results indicate a significant shortage of interactive boards in schools across Lebanon, with availability levels varying greatly between educational sectors and geographical regions. In the public sector, around 44.9% of schools lack interactive boards, including approximately 43.5%

of schools where boards are on demand, meaning more than 88% of schools in the public sector either lack them or need them.

The free private sector faces an even greater shortage, with data showing that 43.3% of schools in this sector do not have interactive boards, and this figure increases significantly in some governorates like Beirut, where 100% of schools in this sector lack interactive boards. In the non-free private sector, the shortage ranges between 33% and 44.5%, with some improvement in governorates like Beirut.

Regarding UNRWA schools, data revealed a complete absence of interactive boards in all schools in this sector, which further exacerbates the gap between these schools and the public educational sector. This data underscores the need for urgent steps to provide modern technologies in UNRWA schools to meet the needs of students in this sector.

Differences across governorates

Larger urban governorates such as Beirut and Mount Lebanon showed the highest rates of shortage in interactive boards. For example, in Beirut, data indicated that 79.7% of public schools suffer from a lack of interactive boards, while in Mount Lebanon, the rate is 65.8%. In other governorates like the South and the North, the shortage reaches 52.3% and 72.5%, respectively. However, governorates like Bekaa show lower rates of shortage, although they still face challenges in providing interactive boards.

Supervisors and coordinators noted that there is a significant disparity in availability between different governorates. For instance, in Beirut, 50% of public schools lack interactive boards, while in Baalbek-Hermel, this figure reaches 63.6%, highlighting the major challenges in rural and remote governorates.

Training and Technical Support

Principals and supervisors indicated that there is a significant shortage of training programs on using interactive boards, which prevents full utilization of this technology in classrooms. Teachers in the public sector struggle to use the boards due to a lack of training, which affects the quality of education in classrooms.

Teachers in the free private sector also suffer from a severe shortage of interactive boards, forcing them to rely on traditional teaching methods. While in the non-free private sector, despite some schools having boards, there are still challenges in using them effectively due to a lack of training and ongoing technical support.

The data also shows an urgent need to improve coordination between educational departments in allocating interactive boards to the governorates with the greatest need. While there are some future plans to increase the availability of interactive boards in certain governorates, the current reality highlights a significant gap in the availability of this technology in all Lebanese schools, which requires immediate intervention at both governmental and educational levels to secure technological equipment in schools.

Item 3: Availability of Computers

In the Kindergarten. stage

Principals in the public sector reported a noticeable shortage of computers. In Beirut, 37.5% of schools did not have computers, while only 37.5% provided them on demand. In Mount Lebanon (suburbs), this percentage reached 72.7%, reflecting significant challenges in providing digital technology. In the South, principals indicated that 46.7% of schools were completely without these devices, which affects the quality of digital education. Supervisors in the public sector supported these results, noting high rates of device shortages in the same governorates, making the integration of technology into early education even more difficult. Coordinators also pointed out that the lack of digital resources hinders the effective use of technology. In Beirut and the suburbs of Mount Lebanon, the results showed a significant lack of devices, while the South experienced a major shortage. Teachers expressed their frustration due to the lack of computers in many schools, hindering their ability to provide effective digital education.

In the free private sector, principals faced similar issues, reporting a complete absence of computers in Beirut, while some schools in the suburbs of Mount Lebanon had devices, with a complete absence of computers in the South. Supervisors noted a significant shortage in Beirut, slight improvement in the suburbs of Mount Lebanon, and full availability in the South.

The non-free private sector showed relatively better availability of computers. In Beirut, 33.3% of schools had devices, while in Mount Lebanon (suburbs) the percentage rose to 39.4%. However, there was still a need to improve availability in governorates experiencing shortages. Teachers in this sector expressed relative satisfaction, with some challenges in governorates with significant shortages.

In UNRWA schools, principals reported a major shortage of computers, as most schools lacked these devices entirely. Supervisors confirmed these findings, explaining that the lack of digital resources impedes the use of technology in education. Coordinators described the situation as critical, as most schools lacked digital devices. Teachers in UNRWA schools faced significant challenges due to the absence of computers, weakening their ability to deliver high-quality education.

Governorate Disparities

Clear disparities appeared in the availability of computers in the governorates. In Beirut, 37.5% of schools in the public sector did not provide computers, while in the free private sector, this percentage reached 100%. Supervisors confirmed a similar shortage in the public sector, with a complete absence in the free private sector. Teachers faced significant difficulties in teaching digital curricula due to the lack of devices.

In the suburbs of Mount Lebanon, principals faced a severe shortage of computers, with 72.7% of public sector schools only providing them on demand. The free private sector offered computers in only 25% of schools, while the non-free private sector reached 39.4%. Teachers faced significant challenges due to the lack of availability, with 72.7% of public sector schools offering computers only on request.

In the South, the situation was relatively better compared to other governorates, as all schools in the free private sector provided computers, while only 46.7% of schools in the public sector lacked them. Supervisors and teachers in the South expressed significant improvement in the availability of devices.

In Nabatieh, principals reported a severe shortage of computers, with around 90% of public sector schools lacking these devices. The free private sector faced a complete absence of devices, while the non-free private sector provided computers in only 40% of schools. Supervisors noticed a clear shortage in the public sector, with slight improvement in the non-free private sector.

In Mount Lebanon (excluding suburbs), principals faced a significant shortage, with 70% of public sector schools lacking devices. The non-free private sector provided computers in only 40% of schools. Teachers in this sector faced difficulties integrating technology due to the shortage in 65% of schools.

In the North, principals reported a significant shortage, with 85% of public sector schools lacking computers. The free private sector also faces difficulties, with 95% of schools lacking computers. The non-free private sector provides computers in about 50% of schools. Teachers in the North face major challenges due to the shortage of devices, with 75% of schools experiencing a clear shortage.

In the First Cycle of Basic Education

In the public sector, principals in Beirut indicated that computers were either partially available or completely unavailable, with significant variations compared to other governorates like Mount Lebanon, where more than 60% of principals reported that computers were either unavailable or only available in limited quantities. In the North, about 28.6% of principals stated that computers were only partially available, while in the South, computers were available in only 40% of schools. In Nabatieh, 25% of principals reported full availability of computers. For the supervisors in the public sector, many schools suffered from a major shortage of computers, with 35% of supervisors in Beirut reporting that computers were unavailable, and similar situations were observed in Mount Lebanon and the North. In the South, 40% of supervisors reported that computers were unavailable. As for the coordinators in the public sector, they pointed out the lack of computers in most governorates, with 35% of coordinators in Beirut stating that they were unavailable, while the situation was similar in Mount Lebanon and the North, with slight improvements in the South.

Regarding teachers, 19.8% of them in Beirut reported the unavailability of computers, and the situation in Mount Lebanon and the North was extremely difficult, with many teachers reporting a severe shortage of computers.

In the free private sector, principals in Beirut reported the unavailability of computers, while 50% of principals in Mount Lebanon indicated that computers were fully available. In the North, 83.3% of principals reported the absence of computers, while in the South, computers were fully available. In the Bekaa, the situation varied between schools that provided computers partially or fully. For supervisors in the free private sector, 100% of them in Beirut reported the unavailability of computers, while 40% of supervisors in Mount Lebanon indicated full availability. In the South,

computers were fully available. As for the coordinators in the free private sector, many of them reported a significant shortage of computers in Beirut, with slight improvements in Mount Lebanon and the South.

In the non-free private sector, 33.3% of principals in Beirut reported full availability of computers, while 39.4% of principals in Mount Lebanon stated that they were available. In the North, there was a significant shortage of computers, while in the South, computers were not fully available. For supervisors in the non-free private sector, 44.4% of supervisors in Beirut indicated full availability of computers, while 41.7% in Mount Lebanon reported the same. In the North, the situation was similar in terms of the shortage of computers.

As for teachers in the non-free private sector, 33.3% of teachers in Beirut reported full availability of computers, while there was a shortage in Mount Lebanon and the North, with slight improvements in the South.

In UNRWA schools, computers were fully available in Mount Lebanon, while they were unavailable in the North, with partial availability in the South.

In the Second Cycle of Basic Education

The results from the sectors indicate that in the public sector in Beirut, principals reported that 30% of schools did not provide computers, while 6.7% reported that computers were available in most classes. Coordinators indicated that 10.6% of schools provided computers in all classes. Supervisors reported that 27% of schools did not provide computers, while only 6% had computers in all classes. As for teachers, 27.8% reported that computers were unavailable, while 16.7% reported limited availability.

In Mount Lebanon (suburbs), 15% of principals in the public sector reported that computers were unavailable, and 26.7% reported that they were available in most classes. Coordinators indicated that 40% of schools provided computers in all classes. Supervisors mentioned that 20% of schools in the public sector did not provide computers. Teachers reported that 14.3% of schools did not provide computers, while 28.6% reported noticeable availability of devices.

In Mount Lebanon (excluding suburbs), 14.6% of principals in the public sector reported that computers were unavailable, while 18.3% reported availability in most classes. Coordinators indicated that 33.3% of schools provided computers in all classes. Supervisors mentioned that 18% of schools in the public sector did not provide computers. As for teachers, the "unavailable" percentage was moderate at 18.8%.

In the North, 25.6% of principals in the public sector reported that computers were unavailable, while 12.2% reported availability in all classes. Coordinators indicated that 29.1% of schools did not provide computers, while supervisors reported 22% with no computers. For teachers, the "unavailable" percentage was 29.1%, with a significant shortage of full availability at 12.7%.

In the Bekaa Governorate, 22.4% of principals in the public sector reported the unavailability of computers, while 13.3% confirmed their availability in all classes. Coordinators mentioned that

25% of schools provide computers in most classes. Supervisors reported that 15% of schools do not provide computers. For teachers, the "unavailable" percentage was moderate at 20%.

In the South Governorate, 18% of public school principals reported the complete absence of computers, while 7.4% confirmed their availability in all classes. On the other hand, coordinators indicated that 16.7% of schools lack computers, and 19% of supervisors reported their unavailability. Teachers recorded a high percentage of computer absence at 28%, with limited availability at 12%.

In the Nabatieh Governorate, 20.5% of public school principals reported the absence of computers, while 13.4% confirmed availability in most classes. Coordinators indicated that 22.2% of schools provide computers in all classes. Supervisors reported that 17% of schools lack computers, while teachers recorded a moderate absence percentage at 17.9%.

In the Akkar Governorate, 30.7% of public school principals reported the unavailability of computers, while only 6% confirmed availability in all classes. Coordinators mentioned that 10% of schools lack computers, while supervisors reported that 28% of schools do not provide computers. Teachers recorded a high absence percentage at 28.6%.

In the Baalbek-Hermel Governorate, 24.7% of principals reported the absence of computers, with 5.2% confirming their availability in all classes. Coordinators indicated that 18.2% of schools do not provide computers, while 25% of supervisors reported a lack of computers. Teachers indicated a high absence percentage at 26.3%.

In the Third Cycle of Basic Education

In Beirut Governorate, in the public sector, 23.3% of principals reported the unavailability of computers, while 26.7% of supervisors mentioned their shortage. Coordinators indicated that 32.3% of schools rely on computers on demand, while 9.6% of teachers reported that computers were available in all classes. In the free private sector, 51.6% of principals reported the unavailability of computers, and 50% of supervisors mentioned their shortage. 40% of coordinators indicated a lack of computers, while 16.1% of teachers reported that computers were available in all classes. In the non-free private sector, 13.6% of principals reported the unavailability of computers, and 19% of supervisors mentioned their shortage. 20% of coordinators indicated a lack of computers, while 25.4% of teachers reported that computers were available in most classes.

In Mount Lebanon (suburbs), in the public sector, 15% of principals reported the unavailability of computers, and 12.2% of supervisors mentioned their shortage. Coordinators indicated that 40% of schools provide computers in all classes, while 44.1% of teachers reported that computers were available in most classes. In the free private sector, 30% of principals reported the unavailability of computers, and 25% of supervisors mentioned their shortage. 35% of coordinators indicated that computers were available in all classes, while 22% of teachers reported that computers were available in most classes. In the non-free private sector, 9% of principals reported the unavailability of computers, and 10% of supervisors mentioned their shortage. 15% of coordinators indicated

that computers were available in all classes, while 30% of teachers reported that computers were available in most classes.

In the North Governorate, in the public sector, 26.7% of principals reported the unavailability of computers, and 30.8% of supervisors mentioned their shortage. Coordinators indicated that 19% of schools suffer from a lack of computers, while 31% of teachers reported that computers were available in most classes. In the free private sector, 25% of principals reported the unavailability of computers, and 20% of supervisors mentioned their shortage. 30% of coordinators indicated that computers were available in all classes, while 15% of teachers reported that computers were available in most classes. In the non-free private sector, 19% of principals reported the unavailability of computers, and 25% of supervisors mentioned their shortage. 20% of coordinators indicated that computers were available in all classes, while 35% of teachers reported that computers were available in most classes.

In the Bekaa Governorate, in the public sector, 22.4% of principals reported the unavailability of computers, and 24% of supervisors mentioned their shortage. Coordinators indicated that 22.2% of schools suffer from a lack of computers, while 23.2% of teachers reported that computers were available in most classes. In the free private sector, 15% of principals reported the unavailability of computers, and 20% of supervisors mentioned their shortage. 25% of coordinators reported that computers were available in all classes, while 20% of teachers stated that computers were available in most classes. In the non-free private sector, 10% of principals reported the unavailability of computers, and 15% of supervisors mentioned their shortage. 30% of coordinators indicated that computers were available in all classes, while 25% of teachers reported that computers were available in most classes.

In the South Governorate, in the public sector, 17.2% of principals reported the unavailability of computers, and 20% of supervisors mentioned their shortage. Coordinators indicated that 12.5% of schools suffer from a lack of computers, while 12.3% of teachers reported that computers were available in all classes. In the free private sector, 15% of principals reported the unavailability of computers, and 22% of supervisors mentioned their shortage. 10% of coordinators indicated that computers were available in all classes, while 10% of teachers reported that computers were available in most classes. In the non-free private sector, 10% of principals reported the unavailability of computers, and 15% of supervisors mentioned their shortage. 15% of coordinators indicated that computers were available in all classes, while 20% of teachers reported that computers were available in most classes.

In the Nabatieh Governorate, in the public sector, 21.4% of principals reported the unavailability of computers, and 21% of supervisors mentioned their shortage. 20% of coordinators indicated a lack of computers, while 18.8% of teachers reported that computers were available in most classes. In the free private sector, 12.5% of principals reported the unavailability of computers, and 15% of supervisors mentioned their shortage. 20% of coordinators indicated that computers were available in all classes, while 20% of teachers reported that computers were available in most classes. In the non-free private sector, 9.4% of principals reported the unavailability of computers, and 15% of supervisors mentioned their shortage. 25% of coordinators indicated that computers

were available in all classes, while 18.8% of teachers reported that computers were available in most classes.

In the Akkar Governorate, in the public sector, 30.7% of principals reported the unavailability of computers, and 32.1% of supervisors mentioned their shortage. 25% of coordinators indicated a lack of computers, while 6.3% of teachers reported that computers were available in all classes. In the free private sector, 15% of principals reported the unavailability of computers, and 5% of supervisors mentioned their shortage. 10% of coordinators indicated that computers were available in all classes, while 10% of teachers reported that computers were available in most classes. In the non-free private sector, 10% of principals reported the unavailability of computers, and 10% of supervisors mentioned their shortage. 15% of coordinators indicated that computers were available in all classes, while 20% of teachers reported that computers were available in most classes.

In the Baalbek-Hermel Governorate, in the public sector, 24.7% of principals reported the unavailability of computers, and 31.6% of supervisors mentioned their shortage. 19.4% of coordinators indicated a lack of computers, while 21.1% of teachers reported that computers were available in most classes. In the free private sector, 15% of principals reported the unavailability of computers, and 20% of supervisors mentioned their shortage. 25% of coordinators indicated that computers were available in all classes, while 20% of teachers reported that computers were available in most classes. In the non-free private sector, 10% of principals reported the unavailability of computers, and 15% of supervisors mentioned their shortage. 25% of coordinators indicated that computers were available in all classes, while 18.8% of teachers reported that computers were available in most classes.

In the Secondary Stage

Principals in the public sector in Beirut reported that 38.9% of schools do not provide computers, while in Mount Lebanon (suburbs), the percentage was 14.3%. In Mount Lebanon (excluding the suburbs), the percentage reached 21.9%, while in the North, the highest percentage of schools without computers was recorded at 47.3%. In the Bekaa, the percentage was 36% of schools without computers, while in the South, 44% of schools only partially provided computers. In Nabatieh, the percentage was 25% of schools without computers, while in Akkar, the percentage reached 42.9%. In Baalbek-Hermel, the percentage of schools without computers was 31.6%.

As for supervisors, the Bekaa recorded 16.7% of schools providing computers in all classrooms, while Mount Lebanon (excluding the suburbs) recorded 17.9%. In Nabatieh, the percentage was 6.3%, while in Beirut, 36.4% of schools did not have computers in secondary education classrooms. In the North, the percentage was 8.5%, while in Baalbek-Hermel, the percentage was 5.6% of schools providing computers in all classrooms.

Coordinators reported in Beirut that 22.2% of classrooms did not contain computers, while in Mount Lebanon (suburbs), the percentage was 29.4%. In Mount Lebanon (excluding the suburbs), the percentage was 5.1%, while in the North, the percentage was 28.8%. In the Bekaa, the percentage was 15%, while in the South, it was 19%. In Nabatieh, the percentage was 25% of classrooms without computers, and in Akkar, it was 15.4%. In Baalbek-Hermel, the percentage was 22.2%.

In the free private sector, principals in Beirut reported that 100% of schools did not have computers, while in Mount Lebanon (suburbs), no classrooms lacked computers. In Mount Lebanon (excluding the suburbs), 20% of classrooms did not have computers, while in the North, the percentage was 50%. In the Bekaa, 100% of classrooms did not have computers, while in the South, the percentage was 20%. In Nabatieh, the percentage was 50%, while in Akkar, the percentage was 33.3%, and in Baalbek-Hermel, the percentage was 50%.

As for supervisors in the free private sector, they recorded 100% of classrooms in Beirut without computers, while in Mount Lebanon (suburbs), the percentage was 80% of classrooms with computers. In Mount Lebanon (excluding the suburbs), 40% of classrooms had partial availability of computers, while in the North, the percentage was 25%. In the Bekaa, all classrooms lacked computers, while in the South, the percentage was 40%. In Nabatieh, the percentage was 50%, and in Akkar, it was 33.3%, while in Baalbek-Hermel, all classrooms lacked computers.

Coordinators in the free private sector recorded 100% of classrooms in Beirut without computers, while in Mount Lebanon (suburbs), the percentage was 80%. In Mount Lebanon (excluding the suburbs), 40% of classrooms had partial availability of computers, while in the North, the percentage was 25%. In the Bekaa, all classrooms lacked computers, while in the South, the percentage was 40%. In Nabatieh, the percentage was 50% of classrooms with partial availability of computers, and in Akkar, it was 33.3%. In Baalbek-Hermel, all classrooms lacked computers.

In the non-free private sector, principals in Beirut reported that 41% of classrooms did not have computers, while in Mount Lebanon (suburbs), the percentage was 4%. In Mount Lebanon (excluding the suburbs), 0% of classrooms lacked computers, while in the North, the percentage was 13%. In the Bekaa, 25% of classrooms lacked computers, and in the South, the percentage was 50%. In Nabatieh, 45% of classrooms lacked computers, while in Akkar, the percentage was 23%, and in Baalbek-Hermel, the percentage was 36%.

As for the supervisors in the non-free private sector, they recorded 41% of classrooms in Beirut that lacked computers, while in Mount Lebanon (suburbs), the percentage was 4%. In Mount Lebanon (excluding the suburbs), 42% of classrooms had fully equipped computers, while in the North, the percentage was 32%. In the Bekaa, 6.3% of classrooms had fully equipped computers, and in the South, the percentage was 16%. In Nabatieh, the percentage was 18%, while in Akkar, 46% of classrooms had partial availability of computers, and in Baalbek-Hermel, the percentage was 27.3%.

As for coordinators in the non-free private sector, they recorded 41% of classrooms in Beirut lacking computers, while in Mount Lebanon (suburbs), the percentage was 4%. In Mount Lebanon (excluding the suburbs), 42% of classrooms had fully equipped computers, while in the North, the percentage was 32%. In the Bekaa, 31% of classrooms had partial availability of computers, while in the South, the percentage was 50%. In Nabatieh, the percentage was 45% of classrooms lacking computers, while in Akkar, 46% of classrooms had partial availability of computers, and in Baalbek-Hermel, the percentage was 27.3%.

In UNRWA, principals in the North reported that 50% of schools did not provide computers. Supervisors and coordinators in UNRWA also reported that 50% of schools and classrooms in the North lacked computers.

General Conclusions

In the First Cycle of Basic Education

The results from all respondents (coordinators, supervisors, principals, and teachers) show clear disparities in the availability of computers in schools. Coordinators reported varying levels of computer availability in classrooms, with some governorates showing high percentages of classrooms lacking computers. Supervisors pointed out differences between governorates, with a significant percentage of schools either not having computers or only partially providing them. Principals highlighted that some governorates suffer from a severe shortage of computers, while teachers noted the negative impact of the lack of computers on their ability to provide effective education.

In the Second Cycle of Basic Education

The variation continued in this round across all categories of coordinators, supervisors, principals, and teachers. Principals still faced a significant computer shortage, with large disparities between governorates. Supervisors provided assessments indicating partial or complete shortages of computers, while coordinators noted the variation in the availability of computers in classrooms, which impacted the educational process.

In the Third Cycle of Basic Education

This round revealed a clear gap between the different categories, with all groups showing disparities in the availability of computers in schools. Coordinators pointed out high percentages of classrooms lacking computers, while supervisors recorded significant differences in the percentages of schools providing computers partially or fully. Principals expressed continued difficulties in some governorates, and the lack of computers had a significant impact on the quality of education.

In the secondary stage

The situation repeated in this stage, with noticeable differences between principals, supervisors, coordinators, and teachers. Principals pointed out high percentages of schools not providing computers, while supervisors noted disparities based on governorates, with varying percentages of schools providing computers partially or fully. Coordinators and teachers noted a clear impact of the lack of computers on the efficiency of the educational process across various governorates.

Are these facilities available in the school, and what is their condition?

Item 1: Availability and Condition of Laboratories

In the public sector, the results from Beirut show that principals report that 50% of laboratories need improvements, with 11.1% of laboratories considered unusable. Supervisors observed that 45.5% of schools needed significant improvements, while 33.3% of laboratories were unusable. Coordinators in Beirut observed that most laboratories needed minor improvements (55.6%), while none of the laboratories were well-equipped. As for teachers, 27.8% of laboratories needed improvements, while 11.1% of laboratories were considered unusable.

In Mount Lebanon (suburbs), principals report that 27.3% of laboratories need major improvements or are unavailable, with a shortage of well-equipped laboratories. Supervisors note that about 50% of schools lack laboratories, while only 12.9% have well-equipped laboratories. Coordinators observe that 40% of laboratories need major improvements, and none are well-equipped. Teachers report that most laboratories need either minor or major improvements.

In Mount Lebanon (excluding the suburbs), principals observe that 23.1% of laboratories are unavailable, and 17.9% need major improvements. Supervisors indicate that 40% of schools need major improvements, while 23.1% of schools suffer from a shortage of laboratories.

Coordinators observe that 40% of laboratories need improvements, with a decrease in the number of well-equipped laboratories. Teachers in this governorate report a balance in the condition of laboratories, with a significant proportion needing improvements, but no major shortage of laboratories.

In the North, principals face a difficult situation, with 42.9% of laboratories unavailable, reflecting weaknesses in infrastructure. Supervisors report that 60% of schools lack laboratories. Coordinators in the North observe that 50% of laboratories are unavailable, and 50% need improvements. Teachers note a severe shortage of laboratories, with more than 30% of schools lacking laboratories.

In the Bekaa, principals report that 38.5% of laboratories are unavailable, necessitating significant improvements. Supervisors observe that 16% of schools lack well-equipped laboratories, while 30% need improvements. Coordinators in this governorate report that 45% of laboratories need minor improvements, while 40% are in a non-functional condition. Teachers in the Bekaa note that 28% of laboratories need improvements.

In the South, principals note that 46.7% of laboratories need minor improvements, and 13.3% are well-equipped. Supervisors in this governorate report that 40% of laboratories need minor improvements. Coordinators observe that 33.3% of laboratories need improvements, while 19% are well-equipped. Teachers note a noticeable improvement in laboratory conditions compared to other governorates.

In Nabatieh, principals report that 31.3% of laboratories need minor or major improvements. Supervisors note that 33.3% of schools in Nabatieh lack laboratories. Coordinators observe that

31.3% of laboratories are non-functional, and 43.8% need improvements. Teachers report that 21.4% of laboratories are well-equipped.

In Akkar, principals report that 35% of laboratories are unavailable. Supervisors note that 60% of schools in Akkar lack laboratories. Coordinators observe that 33.3% of laboratories need major improvements, while only 7.7% are well-equipped. Teachers in Akkar note a significant shortage of laboratories, with more than 30% of schools lacking laboratories.

In Baalbek-Hermel, principals report that 45.5% of laboratories need minor improvements. Supervisors note that 21.1% of schools need improvements, and 22.2% are well-equipped. Coordinators observe that 22.2% of laboratories need major improvements. Teachers in Baalbek-Hermel note that 38.9% of laboratories need minor improvements.

In the free private sector, results in Beirut indicate that 100% of schools lack laboratories. Supervisors observe that most schools in Beirut lack laboratories, and coordinators report a total lack of laboratories. Teachers observe the same situation, with no laboratories available. In Mount Lebanon (suburbs), there are no unavailable laboratories. Supervisors note that 40% of laboratories need improvements, while 60% are well-equipped. Coordinators observe that 60% of laboratories are well-equipped. Teachers note that laboratories in the suburbs are better equipped.

In the North, principals report that 50% of schools lack laboratories. Supervisors note a severe shortage of laboratories, with 60% of schools lacking them. Coordinators observe that half of the laboratories need improvements. Teachers report a significant shortage of laboratories in the northern governorates.

In the non-free private sector, principals in Mount Lebanon (suburbs) report that 40% of laboratories are well-equipped. Supervisors note that 32.5% of laboratories are well-equipped. Coordinators observe that 40% of laboratories need major improvements. Teachers in this governorate report that laboratories are better equipped. In the North, principals report that 50% of laboratories are well-equipped. Supervisors note that the situation in the North is better compared to other governorates. Coordinators observe that some laboratories need minor improvements, while teachers report that a good percentage of laboratories are well-equipped.

Item 2: Availability of Libraries

In Beirut, principals, supervisors, coordinators, and teachers all report that the percentage of well-equipped libraries in the public sector is 37.5%. This agreement among all respondents reflects a relative improvement in library facilities compared to other governorates. In the free private sector, the percentage rises to 42.9%, while in the non-free private sector it reaches 45%. Despite these relatively positive figures, UNRWA schools' libraries show a significant shortage, with well-equipped libraries comprising only 10-15%.

In Mount Lebanon (suburbs), the public sector faces greater challenges, with principals reporting that 54.5% of libraries need major improvements, while supervisors note that only 38.9% of libraries are well-equipped. The coordinator confirms that library facilities in most schools are

weak, and teachers report that 33.3% of libraries need improvements. In the South, respondents agree that only 31% of libraries are well-equipped, highlighting the need for better library facilities in most schools.

In Akkar and Baalbek-Hermel governorates, principals, supervisors, coordinators, and teachers confirm a severe shortage in library facilities, with most libraries either not equipped or needing major improvements. In both the free and non-free private sectors in these regions, libraries suffer from significant shortages, with only 10-15% of libraries in UNRWA schools being well-equipped.

In the South, 31% of libraries in the public sector are well-equipped, a modest figure compared to the actual need for improvements in libraries in the governorate. All respondents note the need for better-equipped libraries to ensure an adequate learning environment. In both the free and non-free private sectors, the South also suffers from library shortages.

In the Bekaa, all respondents note that many libraries need major improvements, observing a clear shortage in library facilities that meet educational needs.

In the North, results indicate that libraries in both the public and private sectors face significant shortages in equipment. All respondents agree that most libraries need major improvements, while in UNRWA schools in the North, reports indicate that the percentage of well-equipped libraries does not exceed 10-15%.

Overall, there is a significant disparity in library facilities across Lebanese governorates, with Beirut recording better figures compared to other regions. However, the need for library improvements is evident in all governorates to ensure a more integrated learning environment.

Item 3: Availability of Playgrounds

In the public education sector, principals report that in Beirut, only 12.5% of playgrounds are well-equipped, with 50% of playgrounds needing major improvements, the highest percentage among all governorates. In the South, playgrounds are the best equipped at 46.7%, with this figure rising to 50% in Akkar. In Mount Lebanon (suburbs), 72.7% of playgrounds need major improvements, and 27.3% need minor improvements. In Mount Lebanon outside the suburbs, 55.6% of playgrounds need major improvements, and 33.3% need minor improvements. In the North, 40% of playgrounds need major improvements, and 42.9% need minor improvements. The Bekaa shows 46.2% of playgrounds that need major improvements, while the South achieves a good rate of playgrounds needing minor improvements (46.7%). Akkar tops the list with a high percentage of well-equipped playgrounds at 50%.

Supervisors report that most schools in the public sector suffer from significant gaps in playground facilities. 2.8% of schools lack playgrounds, and 10.6% of playgrounds are unusable. 34.1% of playgrounds need major improvements, and 40.6% need minor improvements. In the free private sector, all schools have playgrounds, but 22.6% of them need major improvements, and 51.6% need minor improvements.

The non-free private sector shows better equipment percentages, with 36.8% of schools having well-equipped playgrounds, and 41.9% needing minor improvements. In UNRWA, 66.7% of playgrounds need improvements.

Coordinators indicated that in Beirut, 66.7% of playgrounds in the public sector require improvements, and 41.7% are well-equipped in the non-free private sector. In Mount Lebanon (suburbs), 41.2% of playgrounds need improvements, and 17.6% are well-equipped. In the North, 37.3% of playgrounds need minor improvements, and 35.6% need major improvements. Teachers found that 3.4% of schools lack playgrounds, and 8.3% of playgrounds are unusable. 23.6% of playgrounds need major improvements, and 37.2% need minor improvements. The non-free private sector shows better equipment, with 44.5% of playgrounds well-equipped.

In the free private education sector, principals found that all playgrounds in Beirut need major improvements. In Mount Lebanon (suburbs), 50% of playgrounds are well-equipped. In the South, 100% of playgrounds are well-equipped. Supervisors noted that all schools have playgrounds, but 22.6% of them need major improvements, 51.6% need minor improvements, and only 25.8% of playgrounds are well-equipped. Coordinators found that 40% of playgrounds in Mount Lebanon (suburbs) are well-equipped, and 20% are unusable. According to teachers, 29.2% of playgrounds need improvements, and 39.7% are well-equipped.

In the non-free private education sector, principals found that 66.7% of playgrounds in Beirut are well-equipped. In Mount Lebanon (suburbs), 51.5% are well-equipped. In the South, 42.9% of playgrounds are well-equipped. Supervisors observed that the sector shows better equipment, with 36.8% of schools having well-equipped playgrounds. Coordinators noted that in Beirut, 41.7% of playgrounds are well-equipped, and 32.3% in the North. Teachers confirmed that the sector shows good equipment rates compared to other sectors.

In the UNRWA sector, principals indicated that playgrounds are well-equipped at 100% in Mount Lebanon (suburbs) and the North. Supervisors found that 66.7% of playgrounds need minor improvements. Coordinators reported that playgrounds in the South require minor improvements at 100%. Teachers noted that the sector provides good availability of playgrounds with some need for improvements.

Conclusions on Playground Equipment Across Governorates and Sectors

In the public sector, Beirut suffers from a severe shortage of playgrounds, with half needing major improvements, and only 12.5% are well-equipped. The South and Akkar show significant improvement, while Mount Lebanon (suburbs) has the highest percentage of playgrounds needing major improvements at 72.7%. Data shows large gaps in playground facilities in public schools, with some schools lacking playgrounds entirely or having unusable playgrounds.

In the free private sector, playgrounds in governorates like Beirut require major improvements, as all playgrounds need improvements. However, the South stands out with 100% of playgrounds well-equipped. Supervisors and teachers report a relative improvement in playground availability compared to the public sector, but the need for further improvements still exists in many schools.

In the non-free private sector, Beirut and Mount Lebanon show good equipment rates, at 66.7% and 60%, respectively. Supervisors and teachers find that the equipment is better compared to the public sector, with 44.5% of playgrounds well-equipped.

In the UNRWA sector, Mount Lebanon (suburbs) and the North enjoy high equipment rates, with 100% of playgrounds well-equipped. The South shows a balance between well-equipped playgrounds and those needing minor improvements.

The overall conclusion reflects a significant weakness in playground equipment in the public sector, with an urgent need for wide improvements. The non-free private sector shows better equipment, with good rates in some governorates. The free private sector shows some improvement, but many playgrounds still need major improvements. The UNRWA sector has good equipment rates in most governorates, with some cases requiring improvements.

Item 7: Availability of Lecture Halls

In the public education sector, the North faces a severe shortage of lecture halls, with 77.1% of schools lacking them, followed by Akkar at 65%, and the Bekaa at 61.5%. Beirut appears in a relatively better position, with only 25% of schools lacking lecture halls, although 37.5% of lecture halls need major improvements and 12.5% are well-equipped. The South shows a balanced situation, with 40% of schools lacking lecture halls, while 33.3% need minor improvements.

In free private education, Beirut and the South suffer from a complete absence of lecture halls, with 100% of schools lacking them. Akkar shows a relative balance, with 50% of schools being well-equipped, while the rest lack lecture halls. Mount Lebanon (suburbs) reflects a similar situation, with 25% of schools lacking lecture halls, and 50% needing minor improvements.

In the non-free private education sector, Baalbek-Hermel leads with 80% of schools well-equipped, followed by Mount Lebanon outside the suburbs at 60%. The South shows a noticeable balance, with 42.9% of schools needing minor improvements and 28.6% being well-equipped.

When analyzing the situation by governorates, it is clear that 28.9% of schools in Beirut lack lecture halls, while 25.8% are well-equipped. Mount Lebanon (suburbs) has a good equipment rate of 42.6%. The North suffers from a severe shortage, with 50% of schools lacking lecture halls and only 12.1% of them being well-equipped. The Bekaa and the South show similar rates, while Nabatieh and Akkar face similar challenges. Baalbek-Hermel also shows weak equipment, with 41.5% of schools lacking lecture halls and only 11% being well-equipped.

These results indicate significant disparities in the availability of lecture halls across governorates and sectors, with an urgent need to improve infrastructure in many schools, especially in the public and free education sectors.

Item 8: Availability of Auditoriums

In the public sector, Akkar, the North, and the Bekaa suffer from a severe shortage of theaters, recording the lowest availability rates. In contrast, Beirut is well-equipped with theaters, while the South shows average equipment levels.

In the free private education sector, Beirut suffers from a complete absence of theaters, while the South and Mount Lebanon show relatively good equipment rates. In the non-free private sector, Baalbek-Hermel leads the governorates with 60% of schools well-equipped with theaters. The UNRWA sector excels in the North, where all theaters are fully equipped, while the South also shows good equipment rates.

Looking at the analysis by governorates, Beirut enjoys the highest equipment rate, with most schools having theaters in good condition. Mount Lebanon (suburbs) has a reasonable availability rate, although 47.1% of schools lack theaters. Mount Lebanon (other governorates) shows similar results, with 37.5% of schools lacking theaters. The North faces major challenges, with 60% of schools lacking theaters and a very low percentage of theaters in good condition (9.1%). In the Bekaa, 53.8% of schools lack theaters, with only 25% of them well-equipped. The South shows a moderate shortage, with 33.3% of schools lacking theaters, and 26.7% being well-equipped. Nabatieh faces 46.4% of schools lacking theaters, with only 12.5% being well-equipped. Akkar records the worst situation, with 65% of schools lacking theaters and only 15.4% being well-equipped.

In Baalbek-Hermel, 60% of schools are well-equipped with theaters, the highest rate among all governorates, although nearly half of the schools still lack theaters.

Overall, Beirut and Mount Lebanon are the governorates with good theater equipment, while governorates like Akkar and the North suffer from severe shortages. The South and the Bekaa show noticeable disparities among schools, highlighting the urgent need to improve theater infrastructure in all governorates suffering from shortages or deterioration of these facilities.

The Availability of Facilities and Services for Learners with Special Needs

Item 1: Ramps

The results of the questionnaire directed to principals in the public education sector show significant disparities in the provision of ramps for learners with special needs. Beirut records the highest percentage in the "completely unsuitable" category at 62.5%, with no schools rated as "good" or "excellent." In Mount Lebanon, 27.3% of schools rate ramps as "completely unsuitable" or "poor," while only 9.1% rate them as "excellent." In the North, the highest percentage is in the "completely unsuitable" category at 65.7%.

In the non-free private education sector, Beirut records 55.6% in the "completely unsuitable" category. In the North, 46.2% of schools consider ramps "completely unsuitable," with 15.4% in the "good" and "excellent" categories.

The UNRWA sector shows excellent performance in some governorates, with 100% of schools in Mount Lebanon (suburbs) rated as "excellent."

The results of the questionnaire directed to the supervisors in the public sector show that more than 78% of schools suffer from inadequate facilities. 45.6% of public schools classify the ramps as "completely unsuitable," and 32.7% describe them as "poor." In free private education, 48.4% of schools consider the ramps "completely unsuitable." In non-free private education, the situation is slightly better, with 37.6% of schools rating the ramps as "completely unsuitable." In the UNRWA sector, 50% of schools regard the ramps as "completely unsuitable."

The results of the questionnaire directed to coordinators in Beirut show that 44.4% of schools in the public sector have unsuitable ramps, while 55.6% have ramps in poor condition. In the free private sector, all schools (100%) suffer from the absence of ramps. In the non-free private sector, 50% of schools have unsuitable ramps, and only 8.3% provide ramps in good condition.

In Mount Lebanon, the public sector shows that 47.1% of schools have unsuitable ramps, while in the free private sector, 80% of schools have ramps in acceptable condition. In the non-free private sector, 37% of schools have unsuitable ramps.

In the North, the public sector shows that 50% of schools have unsuitable ramps, while in the free private sector, 66.7% of schools have unsuitable ramps.

The results of the questionnaire directed to teachers in Beirut indicate a significant shortage of ramps in the public sector. In the free private sector, all schools lack ramps. In the non-free private sector, the situation reflects a variety of classifications, with some schools providing ramps in good condition.

Conclusions:

The public sector in all governorates suffers from a severe shortage of appropriate ramps, with Beirut recording the highest percentage in the "completely unsuitable" category. The free private education sector shows relative improvement in some governorates such as the Bekaa and Akkar, but still lacks "good" or "excellent" facilities. The non-free private sector shows improvement in some governorates, such as Baalbek-Hermel. The UNRWA sector shows improvement in some governorates, especially in Mount Lebanon suburbs.

Item 2: Elevators

The results from the principals show that Beirut is the most affected, with 62.5% of schools describing the elevators as "completely unsuitable," reflecting a significant lack of equipment, while 50% of schools in Mount Lebanon (suburbs) describe the situation as "unsuitable," with only 10% rating the elevators as "excellent," indicating a clear disparity. In Mount Lebanon (outside the suburbs), 69.6% of schools consider the elevators "completely unsuitable." In the North, 60% of schools describe the situation as "unsuitable," with no schools rating the elevators as "excellent" or "good." The Bekaa also suffers, with 69.2% of schools describing the elevators as "unsuitable," and 10% rating them as "acceptable." The South shows disparity, with 50% describing the situation as "unsuitable" and 20% rating it as "acceptable." Nabatieh faces a very weak situation, with 60.9% of schools describing the elevators as "unsuitable." In Akkar, 57.9% of schools consider the situation "unsuitable," with almost no improvements. In Baalbek-Hermel, 47.1% describe the

situation as "completely unsuitable," with some improvement, as 11.1% rate the elevators as "acceptable."

The results from the supervisors show a similar picture but with some improvements in certain governorates. In Beirut, 45.5% of schools describe the elevators as "unsuitable," and 18.2% rate the situation as "acceptable." In Mount Lebanon (suburbs), the situation is "unsuitable" in 35.3% of schools, while 11.8% rate it as "excellent," reflecting relative progress. In Mount Lebanon (outside the suburbs), 69.6% consider the situation "completely unsuitable," with almost no improvements. In the North, 55.3% describe the situation as "unsuitable," with only 5% rating the elevators as "good." The Bekaa also suffers, with 50% describing the situation as "unsuitable," and a slight improvement with 16.7%. The South shows relative balance, with 40.6% describing the situation as "unsuitable," and 20% rating the elevators as "good." Nabatieh suffers from a severe shortage, with 60.9% describing the situation as "unsuitable." In Akkar, 57.9% of schools describe the situation as "unsuitable," with 25% rating the elevators as "good." Finally, in Baalbek-Hermel, 47.1% describe the situation as "completely unsuitable," with slight improvement as 11.1% rate the situation as "acceptable."

The results from the coordinators indicate slight improvements in some governorates. In Beirut, 55.6% of schools consider the elevators "inappropriate," while 8.3% rate them as "excellent." In Mount Lebanon (Suburbs), 35.3% describe the situation as "inappropriate," with a relative improvement as 11.8% view the elevators as "good." In Mount Lebanon (excluding suburbs), the situation is "inappropriate" in 48.7% of schools, with 10.5% describing the elevators as "excellent." In the North, 45% of schools consider the elevators "inappropriate," while 15% describe them as "acceptable." The Bekaa also suffers, with 50% of schools rating the situation as "inappropriate," and a small percentage (10%) describing the elevators as "good." The South shows a rare balance, with 40% of schools seeing the situation as "inappropriate," and 10% describing the elevators as "excellent." Nabatieh is not well-equipped, with 56.3% rating the situation as "inappropriate," and 5% describing them as "good." In Akkar, 50% see the situation as "inappropriate," with 20% rating the elevators as "acceptable." Finally, in Baalbek-Hermel, 44.4% of schools consider the situation "inappropriate," with 11.1% describing the elevators as "excellent."

The teachers' responses reflect a similar view, with slight variations in some governorates. In Beirut, 48.2% of schools consider the elevators "inappropriate," with 10% rating them as "good." In Mount Lebanon (Suburbs), 33.9% view the situation as "inappropriate," with 20% describing it as "acceptable." In Mount Lebanon (excluding suburbs), 50% of schools describe the situation as "inappropriate," with 5% rating the elevators as "excellent." In the North, 40% consider the situation "inappropriate," with a slight improvement of 10% rating the elevators as "excellent." The Bekaa suffers from a significant shortage, with 44.7% rating the elevators as "inappropriate," and 7.5% rating them as "excellent." The South shows better balance, with 30% of schools considering the situation "inappropriate," and 15% rating the elevators as "good." Nabatieh faces difficulties, with 46.2% rating the situation as "inappropriate," and 7% as "excellent." In Akkar, 53.8% of schools rate the situation as "inappropriate," with 11% describing it as "good." Finally,

in Baalbek-Hermel, 47.1% of schools consider the elevators "inappropriate," with 12% rating them as "excellent."

The free private education sector faces a clear shortage. Results from the school principals show that Beirut is significantly affected, with 100% of schools rating the situation as "inappropriate." In Mount Lebanon (Suburbs), 80% of schools view the situation as "inappropriate," while 20% rate it as "excellent." In Mount Lebanon (excluding suburbs), 75% consider the elevators "inappropriate." In the North, the percentage reaches 80%, with no positive ratings. The Bekaa also suffers, with 66.7% of schools rating the situation as "inappropriate," and 10% describing the elevators as "good." The South shows a rare balance, with 50% of schools rating the situation as "inappropriate," and 50% describing the elevators as "excellent." Nabatieh stands out as a weak point, with 60% rating the situation as "inappropriate," and almost no improvements. In Akkar, 66.7% rate the situation as "inappropriate," and 10% as "excellent." In Baalbek-Hermel, 100% of schools rate the situation as "inappropriate," reflecting a complete lack of adequate equipment.

Item 3: Classroom Facilities

The principals' responses regarding classroom facilities for students with special needs show that the public education sector is severely lacking. 57.8% of schools rated the facilities as "inappropriate," with a very high percentage in Beirut at 62.5%. "Excellent" facilities are extremely rare, with only 1.4% of schools providing them. In the free private education sector, 43.3% of schools rated the facilities as "inappropriate," while only 3.3% rated them as "excellent," with notable improvement in the South. The non-free private sector recorded that 38.8% of schools considered the facilities as "inappropriate," with 13.3% rating them as "excellent," with noticeable improvements in Beirut (22.2%) and Mount Lebanon (excluding suburbs) (20%). In the UNRWA sector, 75% of facilities were rated as "good," showing significant attention to equipping classrooms.

The supervisors' responses showed a more severe shortage, with 82.1% of schools in the public sector lacking facilities for students with special needs. In the free private sector, 64.6% of schools faced a similar shortage. The non-free private sector recorded that 53% of schools faced a lack of classroom facilities. On the other hand, UNRWA schools rated classroom facilities as "inappropriate" in 100% of cases.

Coordinators' responses showed variations between governorates and sectors. In Beirut, 44.4% of schools in the public sector rated the facilities as "inappropriate," while the free private sector recorded "excellent" facilities in 100% of schools, and the non-free private sector recorded 58.3% as "inappropriate." In Mount Lebanon (Suburbs), 47.1% of public schools rated the facilities as "inappropriate," with 41.2% rating them as "poor." In Mount Lebanon (excluding suburbs), 35.9% rated the facilities as "inappropriate," and 38.5% as "poor." In the North, 54.2% rated the facilities as "inappropriate." In the Bekaa, 40% rated the facilities as "inappropriate." In the South, 35.7% of schools rated the facilities as "inappropriate." In Nabatieh, the percentage reached 56.3%. Akkar rated the facilities as "inappropriate" in 38.5% of cases, and Baalbek-Hermel recorded 27.8%.

Teachers' responses reflect variations between sectors. In the public sector, 41.8% of schools rated the classroom facilities as "inappropriate." In the free private sector, this percentage reached 39.7%. In the non-free private sector, the percentage dropped to 30.8%. In the UNRWA sector, 25% of schools considered the classroom facilities "inappropriate."

When looking at the results by sector, in the public sector, the principals indicate that the facilities are very weak, with 57.8% of schools categorizing them as "completely unsuitable." Supervisors find that 82.1% of schools suffer from a severe lack of facilities. Coordinators report that 44.4% of schools describe their facilities as "completely unsuitable." Meanwhile, teachers report that 41.8% of schools see classroom facilities as "completely unsuitable."

In the free private sector, the principals indicate slight improvement compared to the public sector, with 43.3% of schools categorizing them as "completely unsuitable." Supervisors find that 64.6% of schools suffer from a lack of facilities. Coordinators report that 100% of schools describe their facilities as "excellent." Teachers report that 39.7% of schools see classroom facilities as "completely unsuitable."

In the non-free private sector, principals report relatively better performance, with 38.8% of schools describing the facilities as "completely unsuitable." Supervisors find that 53% of schools suffer from a lack of facilities. Coordinators report that 58.3% of schools categorize their facilities as "completely unsuitable." Teachers report that 30.8% of schools see classroom facilities as "completely unsuitable."

In UNRWA schools, principals find that 75% of the facilities are categorized as "good." Supervisors report that 100% of schools describe classroom facilities as "completely unsuitable." Coordinators report that 100% of schools describe classroom facilities as "completely unsuitable." Meanwhile, teachers report that 25% of schools consider classroom facilities "completely unsuitable."

Item 4: Availability of Specialized Bathrooms

In Beirut, principals assess the situation in the public sector very negatively, with 22.2% of bathrooms categorized as "completely unsuitable" and 44.4% as "bad." 81.6% of supervisors find the bathrooms as "unsuitable" or "bad," while 44.4% of teachers consider the situation "completely unsuitable." In the free private sector, the situation is relatively better, with 37.5% of bathrooms categorized as "completely unsuitable." In the non-free private sector, Beirut shows improvement, with 58.3% of bathrooms categorized as "completely unsuitable." The UNRWA sector shows good performance, with bathrooms generally considered suitable.

In Mount Lebanon, in the public sector, 81.6% of bathrooms are categorized as "unsuitable" or "bad," and 44.4% of teachers consider the situation "completely unsuitable." In the free private sector, 46.7% of bathrooms are categorized as "completely unsuitable," with slight improvements in some districts. In the non-free private sector, 48% of bathrooms are categorized as "unsuitable,"

with relative improvement in rural areas. The UNRWA sector categorizes the bathrooms as "suitable" overall.

In the North, in the public sector, the area suffers from a severe lack of facilities, with 81.6% of supervisors categorizing bathrooms as "unsuitable" or "bad," and 44.4% of teachers consider the situation "completely unsuitable." In the free private sector, 75% of bathrooms are categorized as "completely unsuitable," indicating a worse situation compared to other districts. In the non-free private sector, the north shows relatively better performance with positive ratings in rural areas. The UNRWA sector categorizes the bathrooms as suitable overall.

In the South, in the public sector, 81.6% of supervisors categorize the bathrooms as "unsuitable" or "bad," and 34.1% of teachers consider the situation "completely unsuitable." In the free private sector, the south shows improvement compared to other districts, with 45.2% of supervisors categorizing the bathrooms as "unsuitable." In the non-free private sector, there are some improvements, with 23.1% of bathrooms categorized as "bad." The UNRWA sector does not face major issues in the south.

In the public sector in the Bekaa, 50.3% of bathrooms are categorized as "completely unsuitable," and the situation is very poor. In the free private sector, conditions are relatively better, but 45.2% of supervisors still see the bathrooms as "unsuitable." In the non-free private sector, there is notable improvement, with 48% of bathrooms categorized as "unsuitable." The UNRWA sector shows positive performance, with bathrooms considered suitable overall.

In public schools in Akkar, 44.4% of bathrooms are categorized as "unsuitable," and supervisors provide similar assessments. In the free private sector, the situation is slightly better, with 45.2% of bathrooms categorized as "unsuitable." In the non-free private sector, there are relative improvements, with 37.7% of bathrooms categorized as "unsuitable." The UNRWA sector performs well, with bathrooms generally considered suitable.

Conclusion:

The results indicate that the public sector suffers significantly from a lack of bathroom facilities, with high percentages of negative evaluations in various districts, especially in the north and Bekaa. The free private sector shows relative improvement but still faces significant problems in some areas such as the north. The non-free private sector shows relatively better performance, with notable improvements in the south and Mount Lebanon. The UNRWA sector is the best equipped, with bathrooms generally considered suitable across all districts.)

Item 5: Availability of Support Staff

In the public education sector, school principals report a significant shortage of support staff, with 57.8% categorizing the available support as "completely unsuitable." Beirut records the highest negative evaluation at 62.5%, while some regions like the South and Baalbek-Hermel report limited levels of good or excellent support. Around 50.2% of supervisors describe the services as "completely unsuitable," with 32.7% rating them as "bad," and a small improvement is noted as

12.4% of supervisors find the situation "acceptable." Coordinators report a significant lack of support staff, with 42.1% considering the support "completely unsuitable" and 30.6% labeling it as "bad." Among teachers, 42.1% describe the support as "completely unsuitable," and 30.6% find it "bad," while only 17.4% consider it "acceptable."

In the free private education sector, there is a relative improvement compared to the public sector, with 40% of principals labeling the support as "completely unsuitable." The South shows relative improvement in excellent support at 10%, though many regions still suffer from a lack of good support. Supervisors find 35.5% of the services "completely unsuitable" and 9.7% "bad." On the other hand, 16.1% of supervisors describe the situation as "acceptable," and 35.5% rate it as "good," indicating a need for comprehensive development. Coordinators note a gradual improvement in support for learners, with 33.5% describing the support as "completely unsuitable" and 20.6% as "bad," while a significant percentage rates the situation as "good" or "excellent." Teachers report 33.5% describing the support as "completely unsuitable," and 20.6% as "bad," while 19.1% consider it "acceptable," and 14.8% regard it as "excellent."

The not free private sector shows a significant improvement compared to the other two sectors, with only 35.7% of principals rating the support as "completely unsuitable." In Beirut, some schools provide excellent support at 11.1%. Supervisors rate 33.3% of the situation as "completely unsuitable" and 12.8% as "bad," while 23.1% find the situation "acceptable," with a noticeable improvement as 19.7% describe it as "good." Coordinators report improvement as well, with 26.5% of them rating the support as "completely unsuitable," while a notable 19.2% see it as "good." For teachers, 26.5% describe the support as "completely unsuitable," 14.6% as "bad," and 21.4% find it "acceptable," with improvements in the provision of good and excellent support.

The UNRWA sector shows relatively better performance, with 50% of schools describing the support as good or excellent, reflecting greater attention to meeting the needs of students with special needs. The supervisors in all governorates believe that it is completely unsuitable, with a rate of 100%. The performance of UNRWA appears better from the coordinators' perspective, with 33.3% rating the support as "completely unsuitable," 33.3% as "bad," and 16.7% describing it as "good" or "excellent." Among teachers, 33.3% describe the support as "completely unsuitable," 33.3% as "bad," and only 8.3% consider it "good" or "excellent."

Comparison across governorates

In Beirut, the results from principals show a significant shortage of support, with 55.6% describing the support as "completely unsuitable." There is limited improvement in some other governorates. For supervisors in Beirut, 45.5% find the situation "completely unsuitable," and 45.5% consider it "bad." The improvement in percentages is minimal. As for coordinators, 40.2% describe the support as "completely unsuitable," and 15.5% rate it as "bad," with only 8.2% of coordinators considering it "excellent." Among teachers, 40.2% describe the situation as "completely unsuitable," and 15.5% as "bad," with a limited percentage considering it "excellent."

In Mount Lebanon (suburbs), the situation is slightly different, with noticeable improvement in some schools, but at the same time, there is an urgent need for more support in other areas. Supervisors in this governorate report that 41.2% of schools face completely unsuitable support,

while 35.3% consider it "bad." For coordinators, 26.5% of schools describe the support as "completely unsuitable," and 15.1% as "bad." Among teachers, 26.5% describe the situation as "completely unsuitable," and 15.1% as "bad."

In Mount Lebanon (excluding the suburbs), the statistics show a continued lack of support in some schools, although there is some improvement in other governorates. Supervisors in these areas report that the situation is completely unsuitable in many schools. Coordinators in these governorates find that schools are suffering from a shortage of support, with 36.0% describing the situation as "completely unsuitable." Teachers also observe a clear shortage of support, with 36.0% describing the situation as "completely unsuitable."

In the North, the educational sector is clearly suffering from a lack of support for students with special needs. Principals in the North point out a clear shortage of support, with a large percentage describing the situation as "completely unsuitable." Supervisors in the North consider 50% of schools to have significant support deficiencies, and 36.8% describe it as "bad." Coordinators in this governorate also find that 38.1% of the support is "completely unsuitable." As for teachers in the North, most describe the situation as "completely unsuitable."

In the Bekaa region, there is a slight improvement in the support provided for students with special needs, but there is still a significant shortage in many schools. Supervisors in the Bekaa describe the situation as "completely unsuitable" in 55.6% of schools, reflecting the need for further improvement in support. Coordinators in the Bekaa describe the support as "completely unsuitable" in 27.7% of schools, while teachers find the situation notably lacking in support.

In the South, the situation is similar to other governorates, with 43.8% of principals describing the support as "completely unsuitable." Supervisors in the South describe the support as "completely unsuitable" in 50% of schools, and 28.1% consider it "bad." Coordinators find a lack of support, with 43.8% describing the situation as "completely unsuitable." Teachers in the South also find a lack of support, with 43.8% describing the situation as "completely unsuitable," similar to other governorates.

In Nabatieh, the results show that 47.8% of principals describe the support as "completely unsuitable," while supervisors in Nabatieh believe the situation requires improvement, with 47.8% of them describing it as "completely unsuitable." Coordinators in Nabatieh find a shortage of support, with 35.9% describing the situation as "completely unsuitable." Teachers in Nabatieh also find that the situation requires improvement, with 35.9% describing it as "completely unsuitable."

In Akkar, it is evident that this governorate suffers from a clear lack of support for students with special needs. Principals in Akkar point out that support is unsuitable in many schools. Supervisors report significant support deficiencies in schools, and coordinators describe the support as "completely unsuitable" in 40.6% of schools. Teachers also find a shortage of support, with many describing the situation as unsuitable in numerous schools.

In Baalbek-Hermel, the situation is similar to many other governorates, with 41.2% of schools suffering from a lack of support. Supervisors in the governorate report a support shortage at 41.2%. Coordinators in this region also observe a lack of support, with 38.1% describing the situation as

"completely unsuitable." Teachers also find the support lacking, with 38.1% describing it as "completely unsuitable."

Overall, the analysis indicates that all educational sectors are facing a notable lack of support for students with special needs, especially in public sectors and schools in remote areas. While there has been noticeable improvement in some governorates like the South, Baalbek-Hermel, and Mount Lebanon, the overall situation still requires significant improvements across all areas.

Item 6: Psychological and Counselling Support Services

The results in Beirut show significant variation across different sectors. In the public sector, 45.5% of principals describe the situation as "completely unsuitable," while supervisors believe 45.5% of schools face the same issue. According to the coordinators' results, Beirut records the highest negative evaluations at 45.5%. Teachers consider 37.9% of the support as "completely unsuitable." In the free private sector, 100% of principals describe the situation as "completely unsuitable" based on evaluations from principals, supervisors, and coordinators. Teachers in this sector find 35.4% of the support as "completely unsuitable." In the non-free private sector, the results vary, with a focus on "completely unsuitable" and "excellent" ratings from principals. Supervisors and coordinators show mixed evaluations, ranging from "completely unsuitable" to "excellent," while 23.1% of teachers find the support "completely unsuitable."

In Mount Lebanon (suburbs), the results are generally negative in the public sector, with 29.4% of principals describing the situation as "unsuitable" and 29.4% as "bad." Supervisors largely agree with this assessment. The coordinators' evaluations range from "acceptable" to "good." Teachers consider 29.4% of the situation "unsuitable." In the free private sector, evaluations vary between "acceptable" and "good" according to the principals and supervisors, while the coordinators describe the situation as "excellent." Only 11.4% of teachers find the situation "unsuitable." In the non-free private sector, principals observe that 25% of the situation is "excellent," while supervisors show a range of evaluations between "excellent" and "good." Coordinators note that the performance is good, with the highest percentage evaluating it as "excellent," while 25% of teachers find the situation "excellent." In UNRWA schools, principals describe the situation as "good," and supervisors report improvements in providing psychological support, with positive evaluations from teachers, some of whom describe the situation as "excellent."

In the North, 50% of principals describe the situation in the public sector as "unsuitable," with 36.8% considering it "bad." Supervisors record large negative percentages. Coordinators note that the North has the highest percentage of negative evaluations. 37.4% of teachers find the situation "unsuitable." In the free private sector, 60% of principals describe the situation as "unsuitable," while supervisors note a clear weakness in service provision. 60% of coordinators find the situation "unsuitable," compared to 37.4% of teachers who also consider it "unsuitable." In the non-free private sector, 38.9% of principals consider the situation "unsuitable," while supervisors note some relative improvement. Coordinators report that the situation is "unsuitable" in some schools. 38.9% of teachers find the support "unsuitable." In UNRWA schools, principals note that the support level

in some schools is "excellent". The coordinator notes some overall improvement, and 50% of teachers describe the situation as "excellent."

In the Bekaa, 55.6% of principals in the public sector indicate that the situation is "unsuitable," with supervisors agreeing with the same percentage. Coordinators believe that improvement is needed in this governorate, while 26.6% of teachers consider the support "unsuitable." In the free private sector, principals report a weakness in service provision with negative evaluations, while 66.7% of supervisors consider the situation "good." Coordinators find the situation "excellent" in some schools, and teachers see some positive evaluations. In the non-free private sector, principals note a range of evaluations, highlighting the need for clear improvement, while supervisors report some improvement but still see a gap. Coordinators mention that the performance is generally varied. Teachers distribute their evaluations between "acceptable" and "excellent."

In Mount Lebanon (excluding the suburbs) in the public sector, 30% of principals mention that the situation is "unsuitable," while 40% of supervisors describe the situation as "acceptable" or "good." Coordinators find the situation balanced between "acceptable" and "good," while 20% of teachers describe it as "unsuitable," with 40% considering it "acceptable." In the free private sector, 50% of principals report that the situation is "unsuitable," with 30% describing it as "acceptable." Supervisors describe the situation as "acceptable" in 50% of cases, while 50% of coordinators confirm that the situation is "good" or "acceptable." On the other hand, 30% of teachers consider the situation "unsuitable." In the non-free private sector, 25% of principals describe the situation as "excellent" and 35% as "good." Supervisors give varied evaluations between "excellent" and "good," while 25% of coordinators confirm that the situation is "excellent." Teachers consider the situation "good" in 35% of cases.

In Baalbek, 45% of principals describe the situation as "unsuitable," while 45% of supervisors find the situation "unsuitable." 45% of coordinators find the situation "unsuitable," while 50% of teachers consider it "unsuitable," and 30% describe it as "acceptable." In the free private sector, principals largely describe the situation as "unsuitable," while the majority of supervisors agree. The majority of coordinators also describe the situation as "unsuitable," while teachers provide negative and clear evaluations regarding the situation. In the non-free private sector, 25% of principals reported that the situation is "excellent." Supervisors provided varied evaluations ranging from "excellent" to "good," while coordinators' assessments were balanced between "excellent" and "good." On the other hand, 35% of teachers confirmed that the situation is "good."

In Nabatieh Governorate, in the public sector, 50% of principals reported that the situation is "unsuitable," while 30% of supervisors considered it "unsuitable." 50% of coordinators also noted that the situation is "unsuitable," and 50% of teachers agreed, while 30% considered the situation "acceptable." In the free private sector, most principals reported that the situation is "unsuitable," while 50% of supervisors also considered it "unsuitable." Coordinators pointed out that the evaluations varied between "unsuitable" and "acceptable," while 50% of teachers considered the situation "unsuitable." In the non-free private sector, 40% of principals reported that the situation is "good" or "excellent." 35% of supervisors considered the situation "excellent." Coordinators noted good performance in some schools, describing the situation as "excellent." 35% of teachers stated that the situation is "excellent."

Item 7: Availability of the Internet

In the public education sector, there is a clear disparity in the availability of the internet. Principals indicate that the internet is not available in some governorates like Beirut, with 37.5% of them rating the internet as "available but poorly." In the south, internet availability was relatively better, with 53.3% of principals rating the internet as "well available." In Mount Lebanon (suburbs), there was variation in availability, with most principals rating it between "good" and "acceptable." In other governorates like Bekaa and the north, the results were similar, with challenges in internet quality.

In the free private education sector, notable improvement was recorded, as 100% of principals in the south indicated that the internet is "very well available." In Mount Lebanon (suburbs), 60% of principals rated it as "very good." However, some schools in other governorates faced difficulties in connecting to the internet.

In the non-free private education sector, the best performance was observed among all sectors, as 60% of principals in Baalbek-Hermel reported that the internet is "very well available." In Mount Lebanon (suburbs), significant improvement was also noted, with 36.4% of principals rating the internet as "very good."

In the UNRWA sector, the results were more varied, with 50% of principals indicating that the internet is "well available," but there are still significant challenges in some governorates.

Regarding supervisors' results in the public sector, they reported large gaps in internet availability, especially in Beirut and Bekaa, where 5.5% of them indicated that the internet is not available at all. In contrast, in the free private education sector, 71% of supervisors reported that the internet is "very good" or "good," while data from the non-free private sector showed that 77% of supervisors reported high-quality internet availability. In the UNRWA sector, (66.7%) of the supervisors found rated the availability of the internet as "good".

Coordinators also confirmed gaps in internet availability in different governorates, especially in Beirut and Mount Lebanon, where some schools could not access the internet or rated its availability as average. In other governorates like the south, availability was better, with 60% of coordinators indicating that the internet is "very well available" in the south.

Teachers' results showed that 13.7% found that the internet is not available at all, and 22.9% thought it is not available most of the time. In the public sector, 20.1% of teachers found that the internet is never available, while in the free private education sector, the situation was more stable, with 24.4% of teachers reporting that the internet is "very well available."

Conclusions

Some sectors, like non-free private education and free private education, show better results in internet availability, while the public sector faces severe issues in providing high-quality internet connection. Most governorates, such as Beirut, Mount Lebanon, and the north, show significant gaps in internet availability.

In the public education sector, the analysis shows a clear disparity in the quality of the internet and the availability of electronic devices. In Beirut, internet connectivity is classified as "available but poor most of the time" by 37.5%, while only 12.5% classify the internet as "available with very high quality." In Mount Lebanon (excluding the suburbs) and the north, the majority classify internet quality as "reasonable," with 44.4% and 31.4% respectively. The south shows relatively better performance, with 53.3% classifying the internet as "available with good quality."

Item 8: Availability of Devices

As for the availability of devices, the public education sector suffers from a severe shortage, with 53% reporting a lack of any laptops and only 2.3% reporting one device per student, highlighting a digital gap that affects digital education. At the governorate level, Beirut faces a significant lack of devices, with 36.4% reporting no devices at all. In the suburbs of Mount Lebanon, 41.2% report "no devices available." In the Bekaa, the percentage rises to 66.7% for the "lacking devices" classification, while the south shows slight improvement in some governorates.

In the free private education sector, the internet is of very good quality in the south and Bekaa, with 100% and 66.7% respectively classifying it as "available" and "very high quality." However, there are issues in Mount Lebanon suburbs, where 25% classify the internet as "poor." As for electronic devices, 35.5% of the classifications indicate a lack of laptops, and some schools provide one device for every five or ten students.

In the non-free private education sector, it shows the best performance in terms of internet quality, with 60% in Baalbek-Hermel classifying it as "available with very high quality." As for devices, there is a lack of laptops at 32.5%, but some governorates, like Akkar, show positive results, with 44.4% providing one device per student.

Finally, in UNRWA schools, 50% of the classification indicates that the internet is "available with good quality," but they suffer from a complete lack of electronic devices, which calls for investments to improve digital infrastructure.

Conclusion:

Public Education Sector: Shows disparity in internet quality, with relatively good performance in the south but significant improvements needed in Beirut and Mount Lebanon.

Free Private Education Sector: Shows positive results, especially in the south and Bekaa.

Non-Free Private Education Sector: The best in terms of internet quality, but suffers from gaps in device availability.

UNRWA: Requires significant improvements to provide balanced digital infrastructure.

At the governorate level, Beirut and Mount Lebanon face major problems with internet quality and device availability, while the south and Bekaa show relatively better results, highlighting the need to enhance digital equity across different governorates and education sectors.



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4. Analysis of the Results for the Fourth Research Question: The fourth research question: "How does the involvement of parents and community members between public and private schools affect the implementation of developed curricula?"

4.1. Analysis of Sub-question: What role can community partnerships play?

We always strive to develop and strengthen the role of the school to make it effective. The reality and statistical data highlight the urgent need for change and rebuilding trust between the school and the community. So, how can we transform the school to be effective?

One of the primary functions of a leader is to manage and activate public relations within the school, among both the educational and administrative staff, between the school and parents, and between the school and the local community as a whole. This requires the school principal to develop plans and programs to activate the relationship between the school and the external community, making school life meaningful and effective.

With the increasing demand for new skills (21st-century skills), the school is no longer isolated from its natural environment; it has become more and more interactive with the local community and parents to achieve the school's vision, mission, and goals. The goal is to raise the academic achievement of students. Therefore, educational management science emphasizes the need to enhance communication channels between the school and parents on one hand, and between the school and local community activities on the other, by training school principals on how to establish effective communication bridges to support the school and activate its role in the community.

Cooperation between the school, parents, and the community has become one of the essential conditions for the success and increased productivity of the school, given the heavy burdens and responsibilities it carries. Weak communication leads to misunderstandings between the administration and parents, which can negatively affect parents' participation in supporting their children and the school.

Research question four was answered by principals, supervisors, coordinators, and teachers. The answers were categorized by identifying these factors in both the public and private sectors and according to the governorates. A comparison between the two sectors was made to determine the impact of these factors, and a Key Insights of the Questionnaire results for each item of the question was provided. The answers to each item are as follows.

Item 1: How is communication between school administration and learners?

Analysis of Teacher Questionnaire Results

52.3% of teachers believe that communication between the administration and learners is generally good. 30.2% of them consider the communication to be highly effective, which means that a total of 82.5% are satisfied with the quality of communication between the administration and learners. However, 14.8% of teachers feel that the communication is limited and insufficient, while 0.7%

believe the relationships are inadequate. An additional 0.7% acknowledge the complete absence of any communication.

The distribution of percentages according to governorates indicates that communication between the administration and learners in Beirut is considered good by 50.0%, with 26.7% considering it highly effective, indicating relatively good communication. In Mount Lebanon (excluding suburbs), 58.3% of teachers perceive the communication as "good," which is the highest percentage, with 20.0% saying it is highly effective. In the North, 54.1% of teachers believe the communication is good, and 24.8% think it is highly effective, reflecting a good level of communication. In Bekaa, 49.0% of teachers see the communication as "good," and 30.6% think it is highly effective, indicating a strong relationship between the administration and learners. In Baalbek-Hermel, 50.6% say it is good, while 26.0% consider it highly effective, which are also good percentages.

In the public sector, 52.3% of teachers believe the communication is "good," the highest percentage, followed by 30.2% who consider it highly effective.

In the private sector, school administrators communicate effectively in most governorates. This positive trend reflects effective communication, with the percentage of teachers who see the communication as highly effective ranging from 32.7% (in Akkar) to 45.4% (in Beirut). The highest percentage of highly effective communication was recorded in Beirut (45.4%), followed by Mount Lebanon (suburbs) with 42.3%. There is also a significant percentage of teachers who considered the communication with learners to be good, with the highest percentages in the North (54.1%) and Mount Lebanon (excluding suburbs) (47.4%). However, there was a percentage of teachers who considered the communication with learners to be limited, ranging from 8.4% (in Nabatieh) to 16.7% (in the North). A very small percentage of teachers reported the absence of any type of communication, with this percentage being at its lowest in most governorates. Additionally, a small percentage of teachers considered the relationships inadequate, ranging from 0.3% (in Mount Lebanon - Suburbs) to 5.1% (in Baalbek-Hermel).

More than half of the teachers in the public sector (28.0% of the total sample) indicate that communication is good with learners, and 16.1% of the total sample believe communication is highly effective. Therefore, in most governorates, there is a large percentage of teachers who believe communication is good to effective, indicating some degree of collaboration and interaction between the school and learners, despite some challenges or areas that need improvement. However, in some other governorates like Baalbek-Hermel and Nabatieh, a large percentage of teachers considered the communication limited or inadequate. The results indicate significant success in achieving positive communication with learners, but the 17.5% who feel communication is insufficient reflects the need for support and improvement in some schools to provide an equal experience for all learners.

Analysis of Principal Questionnaire Results

In the public sector, 34.7% of principals believe communication with learners is highly effective to ensure the integration of efforts. The highest percentages were recorded in Mount Lebanon (excluding suburbs) at 55.6% and the South at 53.3%. In contrast, Akkar and Baalbek-Hermel

recorded low percentages for highly effective communication, with rates of 15% and 18.2%, respectively. (59.2%) of principals believe that communication with learners is "good," with notable performance in Baalbek-Hermel (81.8%) and Akkar (75%). The North shows relatively good performance at 65.7%, followed by the South at 46.7%.

In the free private sector, 46.7% of principals believe that communication is "highly effective" with learners, with remarkable performance in Beirut (100%) and the South (100%). In contrast, Baalbek-Hermel records the lowest percentage at 33.3%.

(46.7%) of principals in this sector find that communication is "good" with learners, with a clear balance in most governorates such as Mount Lebanon (excluding suburbs) (50%) and the North (33.3%).

In the non-free private sector, the results show that (59.2%) of principals believe communication is "highly effective" with learners, with exceptional performance in Baalbek-Hermel (80%) and the South (71.4%). Beirut records a percentage of (66.7%), while the lowest rates are in Akkar (66.7%).

(35.7%) of principals believe communication is "good" with learners, with notable percentages in the North (30.8%) and Mount Lebanon suburbs (42.4%).

Principals in the UNRWA sector, at a rate of (75%), believe that communication is "highly effective" with learners, with ideal performance in all governorates such as Mount Lebanon suburbs, the North, and the South, at a rate of 100%.

Comparison between Governorates

When comparing the governorates, we find that Beirut achieves the highest rates of highly effective communication with learners across all sectors, with the public and free private sectors showing high rates of (50%) and (100%) for "highly effective" communication. Mount Lebanon (suburbs) shows balanced performance, with (44.9%) believing communication is "highly effective" and (42.9%) finding it "good." In Mount Lebanon (excluding suburbs), the percentages are evenly distributed between "good" (43.8%) and "highly effective" (56.3%).

The North shows a clear disparity between sectors, with the public sector recording only (20%) of communication being "highly effective" with learners, compared to (66.7%) in the free private sector. The Bekaa region shows a relative decline, with only (48%) of communication being "highly effective" with learners, with a significant focus on "good" communication at (52%).

In the South, both the public and free private sectors show high commitment to "highly effective" communication at rates of (64%) and (100%) respectively. The rates are lower in Akkar in the public sector, where only (28.6%) rely on "highly effective" communication with learners, compared to (66.7%) in the non-free private sector.

Finally, Baalbek-Hermel shows weak performance in the public sector, with only (18.2%) of communication being "highly effective" with learners, while the non-free private sector stands out with school principals communicating effectively with learners at a rate of (80%).

We conclude that the non-free private sector leads in terms of "highly effective" communication with learners, with a rate of (59.2%). The UNRWA sector shows consistency in "highly effective" communication at (100%) across all governorates.

Analysis of Coordinator Questionnaire Results

In the public education sector, the results show a clear disparity between governorates regarding the communication of school management with learners to ensure community support. In Beirut, (33.3%) of respondents believe communication is highly effective, while higher rates of limited communication are observed in governorates like Akkar and Baalbek-Hermel. In the North and Bekaa, the results show higher rates of good communication.

In the free private education sector, Beirut, Bekaa, and the South show significant agreement on communication effectiveness, with results in these governorates confirming that communication is highly effective at a rate of (100%). In the suburbs of Mount Lebanon, the results were split between good and effective communication, indicating some degree of variance.

In the non-free private education sector, Beirut and Mount Lebanon (both suburbs and non-suburbs) are at the forefront of good and effective communication, with rates exceeding (90%), while Akkar and Baalbek-Hermel show lower rates of effective communication and face challenges in achieving community support.

In UNRWA schools, the results from the North governorate show unanimous agreement on effective communication at (100%), reflecting a high level of coordination between school management and learners to achieve community support.

Overall, the results show that governorates with large urban populations, such as Beirut and the suburbs of Mount Lebanon, tend to record higher rates of good and effective communication across all sectors, while rural governorates like Akkar and Baalbek-Hermel face greater challenges in achieving effective communication, which may require improvements in communication mechanisms and school participation.

Analysis of Supervisor Questionnaire Results

In the public sector, communication between school management and learners is generally good, with (61.3%) of supervisors reporting that communication is "good," while (23%) indicated it is "highly effective." (13.8%) considered communication to be "limited," and (1.8%) felt it was "insufficient." This indicates that most schools in the public sector are working to build effective relationships with learners, with some gaps in certain governorates that need addressing.

In the free private sector, the data show positive communication results, with (61.3%) of supervisors reporting that communication is "highly effective," while (32.3%) consider it "good." A very small percentage (6.5%) consider communication to be "limited." This reflects the focus of free private schools on improving communication with learners.

The data from the non-free private sector in private education show that a large percentage of supervisors (53%) believe communication is "highly effective," and (39.3%) consider it "good." Only (6.8%) considered communication to be "limited," reflecting a very positive communication environment with learners.

The data from UNRWA also show a high percentage of effective communication (100%), with communication being "highly effective" in a large number of cases, reflecting a supportive educational policy and an effort to improve relationships with learners.

Data analysis shows that the public sector faces some challenges in certain governorates, such as Beirut and Bekaa, where there are high percentages of supervisors who view communication as "limited" or "insufficient." In contrast, the free private sector and non-free private sector achieve high levels of effective communication with learners, especially in governorates like the North and the South, with the South and Bekaa showing the best performance.

We conclude that the majority of supervisors agree that communication between management and learners is either good or highly effective in most governorates and educational sectors. The percentages range between (50%) and (82.5%) in the public sector, and between (59%) and (100%) in the non-free private sector and UNRWA. Communication with learners is generally good across all sectors, with the non-free private sector and UNRWA excelling. It is clear that rural governorates, such as Akkar and Baalbek-Hermel, need to improve communication mechanisms to achieve equal opportunities.

Item 2: Communication between administrators and teachers

Analysis of Supervisor Questionnaire Results

In the public sector, (51%) of supervisors' report that communication between management and teachers is "highly effective," with higher rates in the South (80%) and Mount Lebanon (excluding suburbs) (66.7%). In contrast, Akkar records the lowest rate at (30%), followed by Baalbek-Hermel at (27.3%). (46.9%) of supervisors believe communication is "good," with notable rates in Nabatieh (56.3%) and Baalbek-Hermel (63.6%).

In the free private sector, (63.6%) of supervisors believe that communication with teachers is "highly effective," with exceptional performance in Bekaa and the South at (100%). The North shows a noticeable decline at (83.3%). (33.3%) of supervisors find communication "good," with balanced rates in Nabatieh (66.7%) and Mount Lebanon (excluding suburbs) (75%).

In the non-free private sector, (64.3%) of supervisors believe communication is "highly effective," with high performance in Baalbek-Hermel (80%) and Bekaa (77.8%). Beirut records lower percentages of (88.9%) for "good" communication, and (34.7%) of supervisors consider

communication to be "good," with notable rates in the South (71.4%) and Mount Lebanon (excluding suburbs) (60%).

In the UNRWA sector, all supervisors (100%) report that communication with teachers is "highly effective."

Looking at the results by governorate for communication between management and teachers, Beirut shows high performance, with (62.5%) reporting "highly effective" communication in the public sector, while the free private sector shows dominance at (100%). Mount Lebanon (suburbs) shows a relatively balanced performance, with the public sector relying on "highly effective" communication at (63.6%), while the non-free private sector achieves similar rates.

The North shows noticeable differences, with the public sector relying on "highly effective" communication at (45.7%), compared to (83.3%) in the free private sector. Bekaa shows positive results, with all supervisors in the free private sector reporting "highly effective" communication with teachers, while the public sector records a lower percentage (38.5%).

The South shows clear superiority, with (80%) of supervisors finding "highly effective" communication with teachers, and the free private sector achieves perfect performance at (100%). Nabatieh shows balanced rates, with (57.1%) of supervisors reporting "highly effective" communication, while the free private sector achieves a good rate of (66.7%).

In Akkar and Baalbek-Hermel, there is a decline in effective communication with teachers in the public sector, with low rates of "highly effective" communication (30% and 27.3%, respectively). In contrast, the non-free private sector in Baalbek-Hermel performs well, with communication at (80%).

We conclude that the UNRWA sector leads all sectors in communication with teachers, with (100%) of supervisors reporting "highly effective" communication. The free private sector shows clear superiority in schools in the South and Bekaa in adopting effective communication mechanisms with teachers, while schools in the North need to develop this skill. Schools in Beirut, the South, and Bekaa show strong performance in communication with teachers, while supervisors in Akkar and Baalbek-Hermel need to improve and develop their communication mechanisms to be more effective, especially in public sector schools.

Analysis of Teacher Questionnaire Results

Baalbek-Hermel governorate shows the highest percentage of effective communication between management and teachers at (63.9%), indicating a clear distinction in communication strategies. The North shows a decline in "effective communication" at (49.0%), suggesting the need to improve administrative practices by developing this skill among supervisors.

The results from Beirut and Mount Lebanon (suburbs) show similar rates across different categories, indicating that supervisors in these areas are able to communicate effectively with teachers. In contrast, Akkar and Bekaa show relatively higher rates of limited communication, which may indicate challenges faced by supervisors in these governorates and the need for interventions to establish training and follow-up programs for supervisors to enhance this skill.

Analysis of Supervisor Questionnaire Results

In the public sector, communication between management and teachers is reported as "good" or "highly effective" by (85.7%) of supervisors. However, there is a small gap of (14.3%) indicating limited or insufficient communication. In the free private sector, the data shows that (96.8%) of supervisors believe communication is "good" or "highly effective." A small percentage (3.2%) report limited or insufficient communication. In the non-free private sector, (98.2%) of supervisors consider communication between management and teachers to be "good" or "highly effective," while a small percentage (1.8%) view it as limited or insufficient. Data related to communication between school management and teachers in UNRWA schools indicates that communication is "highly effective" at (100%).

At the governorate level, we find challenges in communication with teachers in the public sector in Beirut and Bekaa, where the percentage of supervisors reporting limited communication reaches (27.3%) in Beirut and (27.8%) in Bekaa. In other governorates such as Mount Lebanon, the North, and the South, communication is reported as "good" or "highly effective" with dominant rates. In the free private sector, all governorates, except for Nabatieh, report effective communication with teachers, with (100%) of supervisors noting that communication is both good and highly effective. In the non-free private sector, the rates are similar to those in the free private sector, with a notable distinction in Baalbek-Hermel, where (90.9%) of supervisors consider communication to be highly effective.

The UNRWA sector stands out with a very high level of communication between school management and teachers, particularly in Mount Lebanon (suburbs) and the South, where all supervisors agree that communication is highly effective.

We conclude that the public sector shows noticeable variability in communication with teachers between governorates. In governorates like Bekaa and Beirut, challenges in effective communication with teachers need to be addressed by relevant authorities to develop these skills among school heads, in order to build communication bridges with the teaching staff, which can positively impact teacher performance and student achievement. In contrast, the free and non-free private sectors demonstrate effective communication in the vast majority of governorates, except for some cases in Nabatieh (in free private education) and Mount Lebanon (suburbs, in non-free private education), reflecting the sector's ability to establish a positive communication culture between the parties involved in the educational process, which could foster a learning-oriented environment.

Analysis of Coordinator Questionnaire Results

According to the coordinators' opinions, the public sector shows a clear variation in communication levels between governorates. In many governorates, such as Beirut and Bekaa, communication is distributed between "highly effective" and "good," with some governorates showing less effective communication. In some areas, such as Mount Lebanon and the North, good

communication is seen with varying rates between highly effective and good communication, reflecting diversity in performance levels within this sector.

Private free sector supervisors demonstrate very effective communication with teachers in most governorates. For example, in Beirut, Bekaa, and Mount Lebanon, the rate of highly effective communication reaches (100%), reflecting a strong commitment to effective communication mechanisms. In some governorates such as the South and Nabatieh, high rates of highly effective communication are also observed, highlighting the strength of this sector in building strong communicative relationships.

In the non-free private sector, communication levels are higher than in the public sector. Governorates such as Mount Lebanon, the North, and Bekaa show high rates of highly effective communication, indicating continued improvement in building relationships and effective communication. However, some governorates like Beirut and Akkar show variation in performance, where communication is both highly effective and good in varying percentages. In UNRWA schools in the North, highly effective communication is reported at (100%), reflecting outstanding performance in this sector regarding communication between teachers and management.

The results show significant variation in communication levels between sectors and governorates. The free private sector achieves the highest levels of effective communication, while the public sector suffers from inconsistencies in performance across governorates. The non-free private sector shows a notable improvement in enhancing communication, reflecting greater investment in building effective relationships.

Item 3: Communication between administration and parents

Analysis of Principal Questionnaire Results

Public schools show significant variation in the effectiveness of communication between school management and parents. For example, in Beirut, (37.5%) of principals believe communication is "very effective," while in the North, this rate reaches (31.4%). The governorates of Nabatieh and the South show higher performance, with (37.5%) and (33.3%) of principals, respectively, classifying communication as "very effective." In contrast, some governorates like Akkar show relatively weak communication, with (30%) of principals considering communication to be "limited."

In the free private sector, the results show that the majority of principals believe communication with parents is effective. For example, in Bekaa, (66.7%) of principals classify communication as "highly effective." However, Beirut shows varied results, with (50%) of principals finding communication to be "good," while the other half considers it "highly effective."

The non-free private sector shows strong performance in most governorates. For example, in Beirut, (66.7%) of coordinators classify communication as "very effective." In Mount Lebanon

suburbs, there is a balance between high and good effectiveness, with (45.5%) for each. However, in governorates such as Akkar, only (16.7%) of coordinators classify communication as "good."

In UNRWA, excellent results are seen, with all supervisors classifying communication as "very effective" in both the South and the North, reflecting the strength of the administrative system in this sector.

The results show that there is variation in the effectiveness of communication between school management and parents across educational sectors. The public sector shows significant variation between governorates, while both free and non-free private education sectors enjoy higher levels of communication. UNRWA sets a strong example with high effectiveness across all governorates.

At the governorate level, in Beirut, the non-free private sector shows outstanding performance, with (66.7%) of coordinators classifying communication as "very effective" with parents. In Mount Lebanon (suburbs), the public sector shows a balance, with good rates of effective communication reaching (55.6%). In the North, the public sector shows good communication, with a rate of (54.3%).

In the South, UNRWA and public education lead in achieving very effective communication with parents. Akkar shows relative weakness in communication with parents in both public and non-free private education, with high percentages indicating "limited communication." On the other hand, Baalbek-Hermel shows a balance across all levels, with (36.4%) indicating "good" communication.

In conclusion, the data highlights the need to activate communication mechanisms between school administrations and parents in Akkar and Bekaa in the public sector. The free and non-free private education sectors stand out as effective models in achieving communication with parents in most governorates, while UNRWA confirms the effectiveness of its communication strategies.

Analysis of the Supervisor Questionnaire Results

(76%) of supervisors in the public sector believe that school principals communicate positively with parents, with (54.8%) considering it "good" and (21.2%) considering it "very effective." However, there are challenges in some governorates where (24%) of supervisors believe communication is "limited" or "insufficient." The weakest governorates in communication are Beirut and Bekaa, with limited communication reaching (36.4%) in Beirut and (33.3%) in Bekaa.

In the free private education sector, (93.6%) of supervisors believe communication with parents is positive, with (58.1%) considering it "very effective" and (35.5%) considering it "good." In contrast, the South faces weak communication, with "limited communication" reaching (50%). The best-performing governorates include Akkar, Beirut, and Baalbek-Hermel, which showed strong results in communication with parents.

In the non-free private sector, (94.9%) of supervisors believe that administrations communicate positively with parents, with (48.7%) considering it "very effective" and (46.2%) considering it "good." There are no governorates with weak communication; the highest percentage was in Mount Lebanon (suburbs), where (9.4%) of supervisors reported that communication is "limited" or "insufficient." On the other hand, governorates such as Akkar and Nabatieh showed very good results.

UNRWA schools show outstanding results, with (100%) of supervisors reporting that communication with parents is very positive and effective.

We conclude that there is significant variation between governorates in the public sector, where Beirut and Bekaa show weak communication with parents (36.4% and 33.3%, respectively). In contrast, governorates such as Mount Lebanon (suburbs), the South, and Nabatieh show good and effective communication (70.6% in the suburbs and 65.2% in Nabatieh). Conversely, the South suffers from limited communication, with a rate of (50%). In contrast, Akkar and other governorates like Beirut and Baalbek-Hermel show positive results, with communication in Akkar reaching (100%) as "very effective," and in Beirut and Baalbek-Hermel it is considered "good" at (100%). In the non-free private education sector, Akkar, Mount Lebanon (excluding suburbs), Nabatieh, Beirut, and the South show positive communication results with parents, both "very effective" and "good," at a total of (100%) for each governorate. Baalbek-Hermel also shows positive results, with communication with parents being "very effective" at (72.7%). UNRWA, on the other hand, shows excellent results, with (100%) of supervisors confirming that communication with parents is very effective across all governorates.

We conclude from the comparative analysis that the administrations in the free and non-free private education sectors achieve the highest levels of effective communication with parents compared to the public sector, which suffers from significant variation between governorates. The South and Bekaa show noticeable weaknesses in communication across all sectors, requiring intervention to improve relationships with parents in those governorates. On the other hand, Akkar and Mount Lebanon achieve the best results in all educational sectors, and their experiences can be used to enhance communication in other governorates. The UNRWA sector stands out for its very effective communication across all governorates.

Analysis of the Teacher Questionnaire Results

(48.5%) of teachers in the public sector reported that communication with parents is "good," while (25.0%) stated it is "very effective," with a very low percentage of "no communication" at (0.3%).

In the free private sector, there is a clear discrepancy in Beirut governorate, where teachers' responses show (37.5%) for both "limited communication" and "very effective communication." In Mount Lebanon (excluding suburbs), the results indicate that (51.6%) of teachers consider communication "good" and (48.4%) see it as "very effective." In the North governorate, a large percentage reported "limited communication" (67.5%), with (32.5%) for "good communication." In Bekaa, there is a higher percentage for the response "good communication" (50.0%) and "very

effective communication" at (41.2%). Overall, for the free private sector, the response "good communication" was (48.3%) among respondents, compared to (39.7%) for "very effective communication."

In the non-free private sector, in Beirut governorate, (52.5%) of responses were for "very effective communication," and (37.3%) for "good communication." In the North, (48.0%) selected "good communication," and (41.0%) chose "very effective communication." Akkar governorate showed similar percentages for "good communication" (46.9%) and "very effective communication" (35.9%). Overall results for the non-free private sector showed equal percentages for communication being either "good" or "very effective," each at (45.1%).

For UNRWA, the results by governorate show that Mount Lebanon (suburbs) had (80.0%) for "good communication" and (20.0%) for "very effective communication." In the South, (80.0%) rated communication between administration and parents as "very effective," with (20.0%) for "good communication." The overall results for UNRWA show a balance between "good communication" at (41.7%) and "very effective communication" at (58.3%). We conclude that most governorates and sectors show communication between administration and parents as either "good" or "very effective."

Mount Lebanon (excluding suburbs) in both free and non-free private sectors stand out for "very effective communication," reaching (48.4%). In the North (public sector), (31.1%) of teachers find communication between administration and parents to be "limited," suggesting that school principals in these areas may benefit from workshops and seminars to improve communication channels with parents and involve them more in the educational process and school activities, which would benefit both the students and the school.

Analysis of the Coordinator Questionnaire Results

The free private sector shows the highest levels of effective communication between administration and parents in most governorates, with notable results in areas such as Mount Lebanon (excluding suburbs) and the North. The public sector, however, suffers from inconsistency in communication levels between governorates, with some school administrations demonstrating good communication, while others face challenges in building adequate relationships with parents. The non-free private sector shows improvements in communication with parents, particularly in Beirut and Mount Lebanon. UNRWA results show a good balance between both good and very effective communication.

Conclusion

Communication is a key factor in the success of the relationship between administration and parents. This skill largely depends on the level and effectiveness of communication, reflecting the flexibility of the administration and its commitment to ensuring parental satisfaction to improve the school's image. All opinions in these Questionnaires indicate that the quality of communication

varies between educational sectors and governorates, showing that the relationship is not homogeneous; it is strong in some sectors (like private education and UNRWA) and weak in others (like the public sector in some governorates). This may be due to a lack of effective communication mechanisms or insufficient resources allocated to enhance these relationships, necessitating decision-makers to develop and strengthen communication mechanisms in these schools to avoid exacerbating the gap between administration and parents, which could have a negative impact on the student, the school, and the community.

The relationship between administration and parents ranges from strong to weak, depending on the sector and governorate. Effective communication plays a pivotal role in determining the nature of this relationship, which is evident in the superior performance of sectors like UNRWA and private education.

Item 4: Communication between the administration and the local community

Analysis of Principal Questionnaire Results

When examining the governorates from the perspective of communication between the administration and the local community, Beirut shows a notable balance, where (75%) of public sector principals feel they communicate "well" with the local community, and a low percentage (22.2%) consider this communication to be "very effective." In the free private sector, there is perfect performance, with (100%) of principals seeing their communication with the local community as "good." In Mount Lebanon (suburbs), medium percentages are observed, with (36.4%) of principals in public schools reporting "limited communication" and (27.3%) considering it "very effective." In the North, there is a clear discrepancy between sectors; the non-free private sector shows lower rates, with (23.1%) of principals communicating effectively with the local community, while the public sector is at (14.3%). In Bekaa, the public sector shows positive performance, with (61.5%) of principals communicating "well," while the free private sector demonstrates relative superiority in communication, with (66.7%) of principals reporting good communication with the local community.

In the South, there is clear excellence, with (73.3%) of principals in public schools communicating "well" with the local community, while the free private sector shows perfect performance at (100%). In Nabatieh, (67.9%) of principals in public schools report "good communication," while the free private sector shows a balance between "good" and "very effective" communication, with (33.3%) each.

In Akkar and Baalbek-Hermel schools, there is a need to improve communication with the local community, as the percentage of "very effective" communication is very low in the public sector (5% and 18.2%, respectively). In contrast, the non-free private sector in Baalbek-Hermel shows excellent performance, with (60%) of principals communicating effectively with the local community. The UNRWA sector leads with very effective communication with the local community at (75%).

The free private sector shows high performance in the South and Bekaa, while results in the North suggest weak effective communication with the local community. Beirut, the South, and Bekaa lead in both "good" and "very effective" communication with the local community. Akkar and Baalbek-Hermel schools need to activate communication mechanisms with the local community, especially in the public sector.

Analysis of Supervisor Questionnaire Results

The general situation in the public sector shows limited communication with the local community in most governorates. According to the statistics, (44.2%) of supervisors consider communication "good," while (31.3%) see it as "limited," indicating a need to improve communication levels, particularly in some governorates like Beirut and Bekaa. In the free private sector, there is limited or absent communication in some governorates; (51.6%) of supervisors rate communication as "good," while (16.1%) consider it "limited." These percentages show significant gaps in the quality of communication between schools and the local community, requiring more attention in governorates like Beirut. In the non-free private sector, the data shows relatively good communication with the local community, with (41%) of supervisors rating it as "good" and (27.4%) as "effective." However, there are areas like the North and Bekaa that need to strengthen communication. In the UNRWA sector, (66.7%) of supervisors consider communication "good," while (33.3%) see it as "effective," reflecting a relative level of communication that still needs improvement in some governorates.

At the governorate level, the public sector shows considerable variation. In Beirut, (36.4%) of supervisors find communication "limited," while the same percentage considers it "good." In Mount Lebanon (suburbs), (64.7%) consider it "good." In the North, (31.6%) of supervisors find communication "limited," while in Bekaa, (38.9%) consider it "limited." In the South, the highest percentage of supervisors (53.1%) consider communication "good."

The free private sector shows varying results across governorates. In Beirut and the South, there is good communication across all schools. In Bekaa, (66.7%) of supervisors' rate communication as "good," with (33.3%) finding it "effective." In the North, (60%) of supervisors' rate communication as "effective," while (40%) consider it "good." In Mount Lebanon (suburbs), (60%) of supervisors see communication as "good," with (20%) finding it "very effective," while in Mount Lebanon (excluding suburbs), (75%) see communication as "good" and (25%) find it "effective."

In the private non-free sector, (44.4%) of supervisors in Beirut consider communication to be "good," and (33.3%) see it as "effective." In the South, the percentage rises to (57.1%) for the "good" option, with some gaps in communication in the North, where (44.5%) of supervisors view it as "limited and insufficient." An improvement is observed in some governorates, such as Nabatieh and Akkar.

In UNRWA schools, the results were varied, with (66.7%) of supervisors stating that communication is "good," while (33.3%) considered it "effective." The overall situation reflects effective communication in some schools.

Comparative Analysis Conclusion:

Public Sector: This sector is the most challenging in terms of communication, with clear variation between governorates. Beirut and Bekaa show significant weaknesses, requiring interventions to improve communication with the local community.

Free Private Education: Displays better communication compared to the public sector, but still faces gaps in some governorates, such as Mount Lebanon (suburbs), which requires attention to improve communication.

Private Non-Free Education: Shows relatively better communication in most governorates, but areas like the North and Bekaa need additional strengthening.

UNRWA: Demonstrates the highest levels of balanced and effective communication, with UNRWA schools serving as a positive model compared to other sectors, needing only minor improvements.

Analysis of Coordinator Questionnaire Results

The results indicate that communication between the administration and the local community in the public sector suffers from varying effectiveness across governorates, with limited communication being a key focus in some areas, such as Beirut. The communication between administrations in the UNRWA sector and the local community is highly effective in the North, where (100%) of coordinators report "good" communication, reflecting full coordination between the school administration and the local community. In the free private sector, there is a high level of effectiveness across all governorates, indicating greater effort in communication between schools and the local community. In the non-free private sector, communication is good in most governorates, with some differences in communication levels across the regions.

Item 5: How does the school build relationships with the local community and supporting entities to secure the necessary resources and support?

Analysis of Supervisor Questionnaire Results

In the public sector, communication with supporting entities is limited in most governorates, with (38.7%) of supervisors reporting limited communication. (12.4%) mentioned that communication is insufficient, while (3.2%) reported the complete absence of communication. On the other hand, (33.6%) reported that communication is "good," and (12.0%) considered it "very effective," indicating the need for improvements in communication and enhancing its effectiveness across most governorates.

In the free private sector, the data shows that the majority of supervisors report good communication between the administration and supporting entities at (51.6%), and (22.6%)

reported that communication is very effective. However, (12.9%) mentioned that communication is insufficient or limited. These results suggest there are gaps in the quality of communication in some governorates.

In the non-free private sector, communication with supporting entities was more diverse, with (34.2%) of supervisors reporting "good" communication and (26.5%) reporting "very effective" communication. However, (15.4%) considered the communication "limited," and (13.7%) said it was "insufficient," indicating a relative improvement in communication compared to other sectors. The results in UNRWA schools were varied, with (33.3%) of supervisors reporting "good" communication, (33.3%) stating it is "very effective," and (33.3%) considering it "limited." These results indicate communication gaps in some UNRWA schools.

Governorate-Level Analysis

In the public sector in Beirut, (36.4%) of supervisors reported "limited" communication, while (36.4%) indicated "good" communication. In Mount Lebanon (suburbs), (52.9%) reported "good" communication, reflecting a noticeable improvement. In the North, 50% of supervisors said that communication between the administration, local community, and supporting entities is "limited." In Bekaa, (38.9%) indicated limited communication, and (27.8%) said communication is "insufficient." In the South, (40.6%) stated that communication is "limited," while (12.5%) reported "very effective" communication.

In the free private sector in Beirut, Bekaa, and the South, all supervisors reported "good" communication with the local community and supporting entities, reflecting good communication in these governorates. In Mount Lebanon (suburbs), (40%) reported insufficient communication. In the North, (40%) said communication is "good," and (60%) said it is "very effective," making it the best among the governorates.

The results for the non-free private sector showed that (33.3%) of supervisors in Beirut said communication is "good," and (33.3%) said it is "very effective." In Mount Lebanon (suburbs), (31.3%) reported "good" communication, while (25%) reported "very effective" communication. In the North, (38.9%) reported "good" communication, and (16.7%) found it "very effective."

It is clear that the public sector faces greater challenges in communication compared to other sectors, with "limited" communication in many governorates such as Beirut and the North. However, there is some improvement in the Mount Lebanon (suburbs) area. The free private sector experiences significant communication gaps in some governorates, such as Mount Lebanon (suburbs), but shows good communication in areas like Beirut and Bekaa. The non-free private sector shows relatively good communication in most governorates, especially in the North and Beirut, but it requires improvement in some areas like the South.

Analysis of Coordinator Questionnaire Results

In the public sector, most governorates show limited communication between school administrations and donors. In Beirut, the highest level of responses indicated "insufficient

relationship building" at (44.4%) of coordinators, followed by "limited communication" at (22.2%) of coordinators. In Mount Lebanon (suburbs) and Mount Lebanon (non-suburbs), communication is somewhat good, according to (47.1%) and (41.0%) of coordinators, respectively, while the "insufficient relationship building" rate remains high in some governorates. In the North, there is a balance between good and limited communication, with some effectiveness in relationship building. In Bekaa, limited communication is reported by a high percentage of coordinators (40.0%), indicating the need for improved communication with donors.

In the free private sector, communication with donors is ideal in some governorates. In Beirut, communication is very effective according to (100%) of coordinators. In Mount Lebanon (suburbs) and Mount Lebanon (non-suburbs), communication is largely good, with very effective communication reported by (100%) of coordinators. In the North and Bekaa, there is a balance between good and limited communication, with an emphasis on good relationship building. In the South and Nabatieh, the governorates show weak communication, with some improvement in Akkar and Baalbek-Hermel.

The non-free private sector shows clear variation in communication levels. In Beirut, (41.7%) of coordinators report good communication, while Mount Lebanon (suburbs) and Mount Lebanon (non-suburbs) show high levels of very effective communication at (30.4%) and (100%) respectively. In the North, good communication and moderate effectiveness are observed in some governorates. In Bekaa, the non-free private sector shows a balance between good and effective communication. In the South, communication remains low, although some governorates report good communication.

In Nabatieh, there is a high percentage of coordinators reporting insufficient relationship building, indicating a need for improvement in these areas.

As for the UNRWA sector, communication is fully effective and very efficient in the North, reflecting ideal coordination between the schools and donors.

Overall, the free private sector shows positive results in communication with donors across most governorates, while the public sector needs notable improvements in some areas, especially regarding building community relationships and enhancing effective communication.

The results for communication between school administrations and donors across different governorates and sectors show significant variation in communication effectiveness. In the public sector, communication is generally limited or insufficient in most governorates, with good communication reported in some areas like Mount Lebanon and the North, but it still requires improvement, especially in building sustainable relationships between school administrations and donors.

In the free private sector, positive results were observed in most governorates, with effective communication and good relationship building, particularly in Beirut, Mount Lebanon, and the North. Some governorates in the South and Nabatieh show weakness in communication, but overall, this sector records the highest levels of communication effectiveness.

In the non-free private sector, there is variation in communication results, with good and effective communication reported in certain governorates such as Mount Lebanon (non-suburbs) and the North. However, other governorates, like Nabatieh and Bekaa, require significant improvements.

For the UNRWA sector, communication is ideal in certain governorates like the North, reflecting high coordination between schools and donors. Thus, the free private sector shows strong performance across most governorates, while the public sector needs support and training to activate communication mechanisms with donors to secure necessary resources and support for its schools.

Analysis of Principal Questionnaire Results

The results indicate that (12.9%) of school principals in the public sector believe they communicate "very effectively" with donors and the local community to secure necessary resources and support for their schools. The highest percentage is in Beirut (62.5%), followed by Mount Lebanon (excluding suburbs) with (50%), then the South (43.5%), where principals reported "good communication" with donors. The North shows a relatively lower figure, with (31.4%) reporting communication.

In Mount Lebanon (excluding suburbs), there is a lower performance in communication, as reported by (27.8%) of principals. In Akkar and Baalbek-Hermel, the percentages are very low at (5% and 9.1%, respectively). In the free private sector, (6.7%) of principals consider communication with donors to be "very effective," with ideal performance in the South (100%), and moderate performance in Baalbek-Hermel (66.7%). In contrast, the North shows a significant decline, with only (16.7%) reporting communication. (40%) of principals said they rely on "good" communication, with balanced percentages in Beirut (50%) and Mount Lebanon (excluding suburbs) (50%).

In the non-free private sector, (16.3%) of principals reported "very effective" communication, with Baalbek-Hermel at (40%), the South at (28.6%), and Bekaa at (22.2%). (28.6%) of principals reported "good" communication in Bekaa, and (40%) in Mount Lebanon (excluding suburbs). In the UNRWA sector, (75%) of principals reported "very effective" communication with donors, with high performance across all governorates, including Mount Lebanon (suburbs), the North, and the South.

When comparing governorate results, Beirut achieves the highest percentage in the public sector, with (62.5%) of principals reporting "very effective" communication with donors, while the free private sector shows superiority with (100%) of principals reporting "good" communication. Mount Lebanon (suburbs) shows moderate percentages, with (36.4%) of principals in the public sector reporting "good" communication, and only (18.2%) communicating "very effectively." In the North, there is a clear disparity between sectors; the non-free private sector shows low percentages of "very effective" communication, with (7.7%) of principals, while the public sector is at (11.4%). Bekaa shows a balance in the public sector, with (46.2%) of principals reporting

"good" communication, while the free private sector shows modest percentages of "good" communication with donors at (33.3%).

The South excels in the public sector, with (46.7%) of principals reporting "good" communication with donors, while the free private sector shows ideal performance with (100%) of principals. Nabatieh shows moderate performance, with (46.4%) of principals in public schools reporting "good" communication. The free private sector shows a balance, with (50%) of principals reporting both "good" and "very effective" communication. Akkar and Baalbek-Hermel show a decline in the public sector, with very low percentages of principals reporting "very effective" communication at (5% and 9.1%, respectively). In contrast, the non-free private sector in Baalbek-Hermel shows better performance, with (40%) of principals.

We conclude that UNRWA schools perform the best in "very effective" communication with donors, with (75%) of principals reporting this. The free private sector shows ideal performance in the South, while schools in the North suffer from weak communication with donors. Beirut, the South, and Bekaa lead in "good" and "very effective" communication with donors. However, schools in Akkar and Baalbek-Hermel need to activate communication mechanisms with donors, especially in the public sector.

5. Analysis of the Results for the Fifth Research Question: What are the expected outcomes regarding the implementation of developed curricula from the perspective of stakeholders in public and private schools?

This question aims to compare the educational community's expectations regarding the success of implementing developed curricula based on the different contexts of the public and private education sectors. The response will include a presentation of the focus group results with secondary school students from both sectors, as well as interview results with educational officials in private institutions. Key findings that contribute to answering the question will be highlighted, and a comprehensive final answer will be provided, combining analysis and comparison.

First: Focus Group Results with Students

To answer the fifth question of the study about the needs and requirements for implementing developed curricula from the stakeholders' perspective, focus groups were conducted with secondary school students from various sectors and governorates to gather their opinions on these needs, as they are directly concerned with the implementation of the developed curricula.

The questions centered around several themes: the school environment, educational support, skill enhancement, and readiness for life after school.

Section 1: The School Environment and Feeling of Safety

Students' responses in this theme reflected their need for a school environment rich in supportive resources, both in terms of technology and life skills. They also emphasized the importance of collaborative projects and activities that stimulate creative thinking and prepare them for the future. The items constituting this theme, according to their opinions, are as follows:

Item 1: The Teacher's Role in Creating an Inspiring Educational Environment

Students pointed out that the teacher's personality significantly affects the educational environment. A supportive and understanding teacher enhances students' sense of safety and encourages them to interact and participate. The teacher's role is reflected in how they engage with students, their ability to understand and communicate with them, which serves as an entry point for students to engage with the subject matter and interact with it, thus increasing their motivation.

The students also highlighted the impact of the teaching style, which the teacher adopts, in creating an interactive atmosphere that helps students absorb lessons better, especially when the teaching style suits their needs. According to students, a teaching style based on interaction is more beneficial and helps learners remember lessons, eliminating barriers between teachers and students.

Students focused on the importance of positive interaction within the classroom, which they defined as building a positive relationship between the teacher and students. They believe this relationship boosts their comfort and self-confidence, which positively affects their academic

performance. Students see this interaction as being reflected by the teacher allowing space for conversation, participation, and dialogue. When students feel that the teacher listens to them and values their opinions, they feel appreciated and that their future is being cared for.

Item 2: Attention to Study Materials

Discussions among students focused on several indicators in this item, including the preference of most students for scientific subjects, as they feel these subjects are more connected to their academic and professional futures. They believe these subjects provide better opportunities for the future and are more relevant to their practical lives.

Therefore, some students feel that literary subjects are less important compared to scientific ones, and they do not see a direct future benefit in them. Arabic language and literary subjects fall into this category, with some students viewing them as unnecessary filler with no significant value.

The second point that students focused on in this section is the connection between the subjects they study and their professional future. Based on this connection, their interest in the subjects is shaped, increasing their enthusiasm for scientific subjects while decreasing their interest in certain other subjects that may not receive the same level of attention or enthusiasm.

Item 3: Administrative Attention

Students emphasize the role of the administrative body and teachers in the school, seeing it as positive and cooperative. This feeling contributes to their sense of safety and comfort, and they are content with how things are progressing. Students find that the necessary equipment, assistants, and basic needs are available, and the general atmosphere in the schools is excellent. However, some students who have experienced war and displacement only need some time for psychological rest. During this period, they receive support and assistance from the teachers, educational staff, and the administration.

Students believe that the good treatment they receive and their sense of comfort and safety is a result of the role played by the school administration and teachers in creating a positive educational environment.

Item 4: Extracurricular Activities

In this section, students also focus on extracurricular activities, seeing them as an urgent need because they develop talents and break the monotony of the academic routine. They take this opportunity to showcase their talents, highlighting the importance of dedicating time and resources to support these activities.

Students mentioned their favorite places within the school where they spend their free time, such as the laboratory, the playground, or classrooms. They discussed their relationship with these places and their attachment to them. They also spoke about the times they prefer during the school day, such as their favorite subject lessons or break times. Some students expressed that certain subject, like mathematics, mean a lot to them because of the teacher's teaching style, while others noted that their favorite times varied between activities and subjects, they feel are beneficial. Some prefer physical education classes, which take place once a week, and Arabic language lessons.

There was a notable interest among students in activities held during Independence Day and Arabic Language Day, where they participate in cultural and theatrical activities. Students also complained about the absence of music education classes from the curriculum.

Key Insights of Section One

Students found that implementing the developed curricula requires a school environment rich in resources and technology, with an effective role for teachers who enhance interaction and participation. They prefer scientific subjects due to their connection to their professional future, while they perceive literary subjects as less important. The school administration, in their view, plays a significant role in providing a positive educational environment, especially for students who have gone through difficult experiences such as war. They emphasized the need for extracurricular activities to develop talents and alleviate the monotony of academic life. It was generally found that private education may offer better opportunities in these areas compared to public education.

Section Two: Academic Support

In this section, students focused on several aspects they found essential for implementing the curriculum, which are:

Item 1: Official Support System

In this item, students discussed the appropriate class size and found that reducing the number of students in a class contributes to improving the quality of education, increasing focus, and providing opportunities to ask questions. They also addressed the availability of administrative assistance, noting that administrative support is an important factor in solving students' problems and meeting their needs by providing communication and accessibility. Good communication with teachers enhances interaction both inside and outside the classroom. They found that facilitating communication with teachers presents opportunities for progress and asking questions.

Item 2: Informal Support

Informal support refers to peer support. Students believe that cooperation between them contributes to improving understanding and solving academic problems. They find that continuous communication outside of class hours between students, teachers, or peers enhances the quality of education. Learning platforms and social media are utilized to strengthen this communication. Students praised the teachers for their cooperation and encouragement of communication to solve academic issues.

Students find that exchanging resources and information among them improves their academic performance, with some students helping others, particularly during exam preparation.

In terms of support, students focused on the availability of technological resources, noting that some, such as projectors, are available, but they observed a shortage in some resources, such as

fully equipped computer labs. They emphasized the role of the projector in geography lessons but pointed out the absence of a fully equipped computer lab at the school.

Regarding the use of technology in education, responses emphasized the role of technology in facilitating the learning process, the use of LCD supported by activities, and PowerPoint presentations that are prepared and sent to the platform. If students need to revisit the material, they can access it and review the content. This highlights the importance of adopting technology as a tool to enhance self-learning.

Section Three: Challenges and Needs

Item 1: Need for Institutional Development

Students stressed the need to improve infrastructure and facilities to meet their needs. They pointed out the need for many developments, especially in classrooms, as some tools have become outdated and need to be updated to align with current realities. Students noted a deficiency in this area, which affects their understanding of the material, especially due to the lack of practical and applied experiments. Students feel they need practical applications to better understand the material and cement it in their memory. They also need educational programs to enhance their technological skills.

Technical Challenges. Students highlighted technical issues such as power outages that affect their ability to benefit from available resources. Even with computers, they suffer from power cuts that prevent them from using the computers.

School Equipment and Resources. Responses revealed variations in the availability of equipment and resources between schools. While there are good and spacious playgrounds, some schools lack a theater. This highlights the need for additional facilities, such as theaters and labs, to motivate students and provide a comprehensive learning environment.

The Responsibility of Institutions. Students stated that educational institutions are responsible for providing an environment that is developed and suitable for students. Schools need more support from the ministry to improve their situation, and the responsibility lies with everyone, from the administration to the ministry.

Students emphasized the need for development projects by launching initiatives aimed at improving the quality of education and school facilities. These projects help improve schools, and clear plans should be in place to update schools.

Item 3: Enhancing Skills

Students clarified the importance of acquiring technological skills during school to prepare well for university and the job market. They pointed out that learning skills such as computer use is essential for preparing for future life requirements, both in education and work. They consider working on a computer as a very important skill that must be learned to be ready for university and work. They also highlighted the importance of dedicating school hours to intensive computer

lessons, especially for students who do not have a strong technological background. They further expressed the need to learn basic skills such as writing a CV and preparing for job and university interviews. Some students even expressed a lack of knowledge about how to write a CV or how to apply for a job or university admission.

One student mentioned that the school could offer opportunities to learn programming or develop technical skills such as coding and web development through specialized labs.

In terms of manual and creative skills, students discussed the importance of developing these skills, such as drawing and arts. However, they pointed out the lack of resources allocated for these activities. Some mentioned that they bring their own materials, but there are no specific rooms or tools for drawing. Others indicated a lack of suitable spaces for practicing creative arts, even though the arts are important for developing critical and creative thinking skills.

Regarding social and collaborative skills, students emphasized the importance of activities that promote cooperation and teamwork, such as weekly meetings aimed at exchanging ideas and organizing beneficial school activities. They mentioned that they have weekly meetings where they discuss new ideas and plan activities that benefit all students. Students also noted the presence of psychological and social support at the school through counselors, which helps them deal with personal and psychological challenges. They believe that everyone needs a counselor, not just those with mental health issues, as mental health affects academic achievement.

Item 4: Preparing for Life After School

In this part, students focused on academic and career guidance. They praised the guidance they received in choosing their academic and career paths and highlighted the importance of meetings that help them identify college majors. One student shared that a specialist came to the school and talked to them about future majors and how to choose the right major. Students also pointed out the need to raise their awareness about higher education options and available majors, especially since there are many majors they are unaware of, even though they go through phases of uncertainty about what they want, often unable to distinguish between what they like and what they want.

Some students clarified that teachers play a significant role in guiding them toward the correct academic and professional paths, as, in their view, teachers are the people who best understand what students want and like.

Regarding community service and projects, students emphasized the importance of participating in community activities. They organized a fundraising project to donate to a charity. However, they expressed a desire for more educational projects closely linked to their academic subjects. Some students expressed their joy in participating in the fundraising project and described it as a very beautiful activity. Others felt there are no projects related to their academic subjects, and they would like to participate in projects that enhance their understanding.

These responses reveal the students' need for guidance toward educational projects that are closely tied to their curriculum, enhancing their practical learning and opening opportunities for developing practical skills.

Students raised the issue of self-awareness and making academic decisions. Their responses showed the importance of academic guidance in increasing their self-awareness, which helps them make informed academic decisions. One student mentioned the importance of this guidance from early stages, saying that when a university tells him that he is not yet ready for university due to insufficient awareness, he needs to develop his self-awareness with the available resources.

The students expressed a desire to learn more about academic disciplines in greater depth, and the need for guidance throughout their academic years to focus on fields that align with their future interests.

When the idea of exploring academic disciplines was brought up, it highlighted the students' need for more guidance about different academic specialties. They noted that there are many disciplines they don't know much about, which leads to confusion when making their educational decisions. They stressed the role of teachers in guidance, stating that teachers play a crucial role in guiding students in their academic and career paths, as teachers know their students better than anyone else. This emphasizes the necessity for teachers to be equipped with the tools and skills needed to provide professional guidance and assist in directing students effectively.

The focus group discussion concluded with several general findings

Primarily, concerns were raised regarding the current curriculum. These included an overemphasis on memorization instead of critical thinking. Students criticized the curriculum for its excessive focus on rote memorization, which limits the opportunity to develop analytical and creative thinking skills. They affirmed the need for a change that encourages problem-solving and intellectual exploration. Another conclusion was that the content is outdated, with the curriculum being described as disconnected from current societal, economic, and technological developments. Students found it irrelevant to real-world applications, particularly in subjects like history and economics, where they suggested updating the content to include recent examples and events. One more issue raised was the lack of preparation for future careers. Many students felt that the curriculum lacks essential skills needed for future professions, such as public speaking, debating, leadership, and teamwork. There was also criticism regarding the insufficient focus on practical skills related to professional work environments.

Regarding suggestions for curriculum development, students focused on interdisciplinary learning and suggested integrating subjects to make education more comprehensive and interconnected. They also called for skill-based learning by advocating for curricula that emphasize cross-cutting skills such as critical thinking, promoting analytical thinking, and problem-solving. Public speaking skills were highlighted as a way to develop communication skills, while collaborative problem-solving was emphasized to enhance teamwork.

Students stressed the need to integrate technology by including subjects that rely on technology, such as programming, robotics, digital skills, and the use of artificial intelligence tools. They believed these skills are essential for adapting to technological advancements in the job market.

On the topic of social and emotional learning, the suggestions included implementing programs focusing on emotional intelligence, stress management, and building resilience, particularly in public schools.

Regarding teaching and learning methods, students called for adopting practical and applied approaches, such as scientific labs, real-world scenarios in economics, group projects for collaborative learning, and practicing public speaking. They suggested using interactive learning methods with multimedia, such as videos and digital simulations, as an effective way to engage students.

In the same context, they recommended teacher training in modern methods, including integrating digital tools in education and encouraging open discussions and critical debates.

On the topic of philosophy and abstract subjects, students suggested innovative ways to teach abstract concepts through activities rather than relying on memorization.

Regarding assessments and exams, students called for revisiting exam formats by focusing on tests that measure understanding and application rather than memorization. They advocated for balanced assessment systems that should include both theoretical and practical components to evaluate students' abilities comprehensively. They also recommended adopting flexible assessment policies, with students suggesting leniency for minor mistakes in practical subjects like chemistry, allowing assessment systems to better reflect true understanding.

Students called for fairness and accessibility in resource distribution, noting that those from remote areas lacked resources, such as internet access and digital devices. They emphasized the need for equitable distribution of resources across all regions.

They also raised the issue of the digital divide. While some schools effectively use digital resources, others lack basic infrastructure. Addressing this gap was seen as crucial for achieving educational equity.

One of the main conclusions drawn by students was the preparation for future opportunities, particularly aligning curricula with university requirements. They stressed that curricula should reflect university admission standards, especially in analytical writing, research skills, and knowledge of subjects relevant to higher education.

Regarding preparation for the job market, their suggestions included teaching skills such as communication, workplace ethics, project management, and solving complex problems in real-world scenarios.

On extracurricular activities and inclusive education, students proposed integrating them into the curricula, as activities like art, sports, and music should be recognized as essential parts of education. They also suggested including community service projects to promote civic responsibility and the practical application of learned values.

In the same context, they proposed the idea of supporting talent, urging schools to provide resources to develop individual talents in sports, the arts, and other non-academic fields.

Another conclusion was the importance of cultural and socio-economic relevance. They focused on local history and culture, advocating for the inclusion of local events, cultural narratives, and traditions to ensure curricula connect with students' identities. They also called for attention to a global perspective alongside local culture, believing that curricula should also promote a global outlook to prepare students for cross-cultural understanding and international opportunities.

One of the main areas where students offered suggestions was the use of technology in education, specifically digital resources. They called for encouraging the adoption of digital learning platforms such as e-books and tablets to reduce the physical burden of heavy textbooks and update learning methods. They also advocated for technology-driven education, which includes using tools such as virtual simulations, online collaboration platforms, and digital assignments.

Regarding content updating, students addressed the need to revise textbooks to include emerging topics such as artificial intelligence, sustainability, recent historical events, and economic developments. They stressed the importance of practical applications and ensuring that content is connected to real-world applications, particularly in STEM subjects and economics.

Key Insights

Students' discussions on this topic focused on the importance of diverse academic support. They pointed out the need to reduce the number of students per class to improve the quality of education and enhance communication with teachers. They also emphasized the role of administrative support in meeting student needs, as well as the importance of peer collaboration in enhancing understanding and problem-solving. Regarding technology, students highlighted its use in facilitating the educational process, despite the lack of some resources such as computer labs. In the area of challenges, students emphasized the need to develop the infrastructure of school facilities and improve equipment, especially in schools lacking tools such as auditoriums and specialized labs. They also addressed the importance of enhancing technological and social skills, emphasizing the need for learning digital skills and effective communication to support preparation for their academic and professional futures.

Key Findings:

Teachers need to adopt flexible and engaging methods.

The importance of extracurricular activities (theater, music) should be emphasized.

Availability of school support and the need for its reinforcement.

Attention should be given to the classroom environment to facilitate communication between teachers and students.

Career guidance should be prioritized.

Collaboration should be encouraged as it has proven effective among students.

Technological tools should be provided and invested in the educational process.

Focus should be placed on interdisciplinary learning and integration of subjects.

Emphasis should be on skill-based learning.

Technology must be integrated.

Programs focusing on emotional intelligence should be implemented.

A practical and applied approach should be adopted.

Assessment mechanisms should be reconsidered.

Second: Results of Interviews with Educational Officials in Private Institutions

These interviews are part of the effort to explore the expected outcomes regarding the implementation of the developed curricula from the perspective of stakeholders in both public and private schools, and they fall under the framework of the fifth research question.

For this purpose, interviews were conducted with officials from widely spread private educational institutions across Lebanon, representing all segments of Lebanese society, to gather their opinions on the posed question. The interviews covered six main topics, each including sub-questions. The aim of the responses was to compare the educational community's expectations of the successful application of curricula based on the different contexts between public and private education. The results will be presented according to these topics.

Section One: Evaluation of the Human and Material Resources Required for the Implementation of the Developed Curricula

In your opinion, what are the essential resources required (human and material)?

The responses to this question were as follows:

There is a clear connection between the lack of preparation in human resources and the ability to implement the new curricula. The lack of training and clarity led to contradictions in the implementation of the 1997 curriculum. Material resources also present an additional challenge, as schools that are not adequately equipped will face difficulties in meeting the requirements of the new curricula. The economic and social conditions further complicate the situation, making it necessary to address both categories (human and material) before implementing any new curriculum. Training and recruiting new staff represent a major challenge in ensuring the quality of the developed curriculum's implementation. The competency assessment method requires a high level of expertise, making continuous training essential.

School Readiness

The disparity in equipment between public and private schools, as well as among private schools themselves, is an obstacle to the implementation of the new curricula. Some large private educational institutions have good resources, but they need to reduce the gap between their different schools to achieve better equity.

Connection between Material and Human Resources

Having modern material resources is essential to support teachers in implementing the curricula. Additionally, training teachers to use these resources efficiently enhances the successful implementation of the developed curricula. The success of implementing the new curricula primarily depends on investing in human resources (teacher training), by attracting competencies and training current staff to ensure academic readiness. It also requires supporting material resources (providing equipment and ensuring equity between schools) and reducing readiness gaps between different schools (enhancing internal equity), with support for less-equipped schools, whether public or private.

From the responses of officials in educational institutions, it can be concluded that there is a need for resource integration. The success of implementing the developed curricula depends on providing advanced material resources along with investing in teacher training and improving their competencies. To achieve this, practical steps must be taken, including securing the necessary material resources in schools and designing sustainable, targeted training programs for teachers.

Do you have any statistical information about the availability of equipment and educational tools in the school?

The responses were as follows:

There is a disparity in readiness between educational institutions within the same organization, with differences between free and income-generating schools in favor of the latter. Computers and interactive whiteboards are available in well-equipped schools. Science labs are also available, but there is a need for additional equipment, particularly in free private schools. Despite this, private institutions meet most of the curriculum requirements, with a noted lack of equipment for the secondary section in some schools, which is a key challenge, as the new curricula require modern spaces and equipment.

The lack of accurate statistics in the secondary section and the absence of precise data hinder making appropriate decisions and allocating resources to meet actual needs. However, there is a clear shortage in many of the required resources.

Unequal readiness between schools requires a comprehensive plan to ensure equal educational opportunities for all students. Educational institution officials recommend a gradual implementation of curricula, as a gradual approach can help reduce the gap between schools, focusing on preparing early stages as the first step. They emphasize the need to prepare both the infrastructure and the mindset, as ensuring success requires time for preparation, changing the

educational mentality, and securing resources. Private institution officials call for a clear and comprehensive guide for equipment from the educational center, which could help reduce the readiness gap between educational institutions.

Do you have a plan to secure these educational tools and equipment?

The responses from officials in private institutions to this question were as follows:

Financial and Organizational Challenges

According to the officials in private institutions, financial and organizational challenges form a major obstacle to the implementation of the new curricula. The curricula require educational institutions to modify their current technological plans, in addition to funding to implement these modifications.

Readiness in the basic Education Stage

Private institutions demonstrate good organization and readiness to adopt the new curricula in the primary stage. However, the secondary stage remains a challenge due to the complex selection system and diverse specializations, which calls for a delay in the application of curricula there until solutions are found.

Disparity Between Schools

There is a gap between schools within educational institutions, with some schools classified as unready to implement the new curricula across all branches, reflecting a challenge in achieving equal educational opportunities between schools.

Financial Planning

Financial planning is considered a key factor in implementing the plan effectively. Allocating dedicated budgets ensures the resources required for successful implementation.

Public and Private Sector Partnerships

Partnerships with both the public and private sectors are a fruitful strategy for obtaining the necessary funding, technical support, and infrastructure. The private sector can provide additional resources and technical expertise, while the public sector helps achieve institutional support.

Securing tools and equipment requires coordination between multiple parties and is an integral part of strategies to improve curricula and the educational process as a whole.

Educational Officials in Private Institutions Raise Issues Regarding the Implementation of the Developed Curriculum:

Issues and needs in implementing the curriculum, especially in the secondary stage, include timing problems, distribution of subjects, and unclear long-term implementation plans.

The need for more clarification and guidance: This includes answering questions like: What is required? And what is the right direction to follow?

Coordination with the Ministry of Education as a prerequisite: The plan depends heavily on the Ministry of Education's plan to guide future actions, as it is impossible to define what is required precisely without knowing the official direction from the Ministry of Education.

Key Insights

This topic addressed the evaluation of the human and material resources required for the implementation of the developed curricula. Key challenges highlighted included the lack of training and material resources in some schools, affecting the ability to implement the new curricula. The responses underscored the importance of integrating human resources (such as teacher training) and material resources (such as school equipment) to ensure successful curriculum implementation. There is also a noticeable disparity in readiness between schools, requiring a comprehensive plan to ensure equal educational opportunities. For the secondary stage, challenges in curriculum implementation due to a lack of equipment call for special attention to funding and coordination between the public and private sectors.

Section 2: Regarding the human resources required for the implementation of the developed curricula,

In your opinion, what new human resources does the school need to implement the developed curricula?

Educational officials emphasized several points regarding their institutions' need for new human resources, including:

Preparing human resources to absorb the developed curriculum: This requires a shift in mindset from traditional approaches to modern educational thinking linked to advanced teaching methodologies.

The need for new specialists: With the introduction of new subjects in the curriculum, such as religious culture and vocational education, there is a need for specialists to teach these subjects effectively. Some of the key new specialties include technology and vocational education, requiring the preparation of specialists to ensure the optimal use of these educational tools.

Focus on vocational education and addressing special needs: The emphasis on vocational education and pathways between academic and vocational education is part of the developed curriculum. The text also highlights the need to prepare teachers to deal with students with special needs, which requires specialized training programs.

Competency-based assessment: The shift from traditional assessment based on objectives to competency-based assessment represents a fundamental change in the teaching and evaluation process. This requires teachers to be capable of measuring students' skills, not just their knowledge acquisition.

Conclusions from the responses of educational officials:

Continuous training for human resources at the educational and technological levels is fundamental to implementing the developed curriculum. This training should include preparing teachers to use technology in teaching and teaching them how to work with students with special needs.

Training in specialized fields for new subjects such as religious culture and vocational education is an essential part of the developed education plan. Therefore, specialists in these fields should be sought to cover the gap in human resources.

The transition to competency-based assessment requires a comprehensive change in the way teachers work and in teaching methods.

The administrative and educational staff in schools need ongoing preparation and training to ensure effective adaptation to the new curricula, especially in the branching phase in secondary education.

The financial challenge related to implementing branching requires clear funding plans to ensure the sustainability of education under the developed curricula.

Specialized training for teachers in new knowledge fields is key to the successful implementation of the developed curriculum. Continuous training programs should be provided to ensure that teachers are adequately qualified according to the objectives of the new curricula.

In your opinion, are specialized competencies appropriately available to support the new curricula?

Officials in private educational institutions state that specialized human resources are not available, but institutions are ready to provide training. There is a need for a trained administrative body capable of adapting to and effectively overseeing the new curricula. This adaptation includes understanding the branching according to the core subjects in the secondary stage. However, there are challenges in implementing branching due to the additional costs faced by schools.

There is also a need for teachers who can work with students with special needs and manage technology effectively.

Conclusions from these responses

There is a reality that specialized human resources are not available in educational institutions, and the challenges faced include:

If branching occurs in secondary education subjects, there are no specialized teachers for the newly introduced subjects.

If the goal of the developed curriculum is to reach inclusive schools, there is a significant shortage of teachers qualified to work with students with special needs.

There is a large gap in preparing teachers to handle technology and use artificial intelligence in the processes of teaching, assessment, planning, and implementation.

Key Insights

This section focused on the importance of having the necessary human resources for implementing the developed curricula. Educational officials highlighted the need for specialized teachers in new fields such as vocational education and religious culture, as well as the necessity of preparing teachers to work with students with special needs. The importance of training teachers to use modern technology and assessing competencies and skills, rather than relying on traditional assessments, was also mentioned. Although institutions are prepared for training, there is a shortage of specialized competencies, particularly in the branching phase of secondary education and the need to adapt to technology. The financial challenge related to branching also represents an additional obstacle to the effective implementation of the new curricula.

Section 3: The Role of School Leadership

What is your perception of the role of school administration in ensuring the successful implementation of the developed curricula?

Officials in private educational institutions responded that clear strategies and plans are fundamental for the successful implementation of the developed curriculum. The school administration must be capable of creating implementable educational plans that align with the new trends in the educational system, while providing an appropriate learning environment that helps teachers and students adapt to these changes.

The provision and management of human resources, supporting teachers, and offering continuous training are seen as necessities. The school administration should manage training programs that align with the goals of the developed curricula and help teachers keep up with modern teaching methods.

Officials emphasized that collaboration between relevant parties enhances the success of curriculum implementation. The administration should foster a collaborative culture among teachers, students, and parents, as collaboration is a vital factor in providing additional support for students and achieving the best educational outcomes.

Officials also pointed out that continuous monitoring and evaluation of teachers' and students' performance is an essential tool for ensuring ongoing improvement. The administration must develop effective evaluation mechanisms that take into account changes in the curricula and focus on achieving competencies and skills in students.

They stressed that innovation in teaching methods is crucial to achieving better educational results. The school administration should support modern technologies and innovative ideas that motivate students and encourage critical thinking.

Finally, officials in private schools noted the necessity of providing and managing the necessary logistical resources and effectively monitoring their use to maximize their benefit, whether digital or non-digital, to support the implementation of the new curricula.

Do you think school principals possess the necessary skills to support the new curricula?

The answers focused on the necessity for principals to possess several essential skills, including:

Training for Principals

There is concern that some school principals may lack the necessary skills to support the implementation of the new curricula. Since the principal's role is pivotal in managing the school and implementing new methodologies, specialized training by curriculum developers is essential to ensure that principals have the ability to manage schools in line with educational developments.

Empowering School Leadership

Principals are the leaders who guide the educational process in schools. If they are not administratively and leadership-wise prepared to support the new curricula, educational change may be delayed or threatened. Therefore, it is important for school leadership to be able to support and guide teachers and handle challenges that may arise during the implementation of the developed curricula.

Key Insights

We conclude from these responses that principals are a key element in the success of implementing the new curricula in schools. To ensure the success of the new curricula, principals must undergo continuous training through specialized courses provided by curriculum developers. This training will enable principals to handle new changes and manage schools in line with modern educational trends.

We conclude that leadership training for principals should be an essential part of the successful implementation strategy for new curricula, allowing principals to keep up with changes and guide schools toward achieving the desired results.

Do you think that the powers and duties of the principal need to be reconsidered in the context of implementing the developed curricula? Why?

Officials in private educational institutions expressed several requirements related to the powers of the principal, including:

Reconsidering the Principal's Powers:

Officials in private institutions call for granting principals broader powers and enabling them to make strategic decisions regarding curricula and resources in their schools. These powers allow principals to quickly and effectively respond to educational changes. Modern learning requires principals to be capable of making independent decisions that benefit the achievement of the new curricula's goals.

Activating New Leadership Styles:

School leadership must be renewed and aligned with modern requirements. The school principal must be a creative leader who can adapt to educational changes, and they must have the ability to innovate new methods that meet the emerging educational demands.

Promoting Innovation and Managing Challenges:

Innovation is considered a key element in successfully implementing the new curricula. Principals who contribute to creating an innovative learning environment can manage challenges more effectively and achieve educational goals. This enhances the efficiency of implementing curricula and achieving the desired outcomes.

Legal Frameworks:

There is a need to align the new curricula with legal amendments for them to be implemented. There is a need to modify laws related to automatic success, the relationship between academic and vocational education, and distance learning. Additionally, Law 2013 stipulates that principals must hold a degree in school management, a requirement that has not yet been implemented.

What does school leadership need to be effective in this context?

According to officials in private schools, school leadership needs to enhance leadership skills through practical training programs that align with the latest educational methods. These skills help principals keep up with the new curricula and guide schools toward achieving educational goals.

Moreover, effective communication with teachers, parents, and the surrounding community is necessary. This communication helps create a collaborative school environment that supports the implementation of the new curricula. Such collaborations contribute to providing a suitable educational environment that encourages innovation and activates integrated school activities.

Additionally, technical and technological support is essential for the successful implementation of the new curricula. This support ensures the continuity of the educational process and presents it in a way that aligns with modern technology, which can enhance the student's learning experience.

A key need identified by officials in private education institutions is the presence of a clear vision and strategy for principals that enables them to set clear educational goals and ensures their ability to plan effectively and organize resources in line with the developed curricula.

In conclusion, to ensure the success of implementing the developed curricula, principals need to develop leadership skills through specialized training programs in modern teaching methods. These skills will help them lead change within schools. They also need effective communication with teachers, parents, and the community, as this communication plays a significant role in supporting curriculum implementation by fostering a collaborative and innovative environment. Technical and technological support is important to ensure the sustainability of the implementation and to improve the quality of education. Finally, principals must adopt a clear vision and strategy to organize the process of curriculum implementation and help achieve the desired educational outcomes.

Key Insights

This section focused on the role of school leadership in the successful implementation of the developed curricula. Officials in private schools emphasized the necessity for school management to have clear strategies, alongside providing a conducive learning environment that supports adaptation to changes. Additionally, continuous training for principals is required to develop their leadership skills and ensure effective interaction with educational changes. They highlighted the importance of granting principals' broader powers to support the new curricula and the need to foster innovation in leadership styles. Finally, they stressed the importance of effective communication between management, teachers, and parents, with the provision of technical and technological support to ensure the sustainability of the implementation and achieve educational goals.

Section Three: Challenges in Implementing Developed Curricula

What challenges do you think school principals might face when implementing the developed curricula in schools?

Officials in private educational institutions identified several potential challenges, including:

Effective Educational Leadership: Leadership with a long-term vision that is capable of adapting to challenges.

Community Partnerships: To enhance both material and moral support for schools.

Sustainable Training Development: Focusing on enhancing understanding of the new curriculum philosophy.

Gradual Planning: Ensuring a smooth transition from old curricula to developed ones.

In their view, these challenges require:

Building a Flexible Educational Culture: Involving all stakeholders in the change process may help reduce resistance and ensure smooth adaptation.

Overcoming these challenges requires revisiting training plans and techniques, and aligning the developed curricula with practical reality.

Principals need to develop leadership skills capable of offering flexible solutions and efficiently allocating resources.

It is essential to integrate plans to compensate for educational losses with the implementation of the developed curricula to ensure students are ready.

How will school management be supported to ensure its ability to overcome difficulties when implementing the developed curricula?

Officials in private educational institutions found that forms of support include:

Training workshops are fundamental to ensuring that principals and teachers understand the new curricula. Focusing on change management and integrating educational teams enhances positive interaction within the school.

Financial resources pose a major challenge for schools, especially in light of economic crises. Supporting the technological infrastructure is essential to keeping up with the developed curricula.

The presence of educational supervisors helps provide immediate field solutions, reducing delays in implementing the new curricula.

The absence of clear policies and implementation mechanisms complicates the application of the curricula. Setting clear operational regulations defines roles and responsibilities.

The Ministry of Education and Higher Education, and the Center for Educational Research and Development bear the primary responsibility for implementing the new curricula, while schools should act as supportive partners.

Sharing experiences and best practices through support networks helps principals learn from the experiences of others.

From these responses, we can conclude that:

Investing in sustainable training improves the quality of curriculum implementation and overcomes challenges related to human competencies.

Effective funding and transparent priority management are crucial factors in ensuring the creation of a conducive educational environment.

Continuous supervision reduces application gaps and provides direct technical support.

Clarity and flexibility in executive policies enhance coordination among all concerned parties.

Holding official bodies accountable ensures a fair distribution of responsibilities and boosts implementation effectiveness.

Support networks increase the effectiveness of field solutions and reduce duplication in addressing challenges.

The integration of technical, financial, and training support is vital to ensure the successful application of the developed curricula.

Assigning primary responsibility to the state improves coordination and reduces confusion.

Clear and defined implementation mechanisms help reduce challenges and achieve objectives more quickly.

Partnerships among various entities, including schools, ministries, and funding bodies, enhance opportunities for sustainable success.

Efforts should be based on a comprehensive, multi-pronged approach that balances human and material resources with executive policies, with a clear focus on partnerships and institutional cooperation.

Is there a plan to follow up on the implementation?

Officials in educational institutions identified several steps for following up on the implementation, including:

Emphasizing the importance of developing a well-planned and methodical timeline for implementing the new curricula, while stressing the necessity of testing the curricula with samples before widespread implementation.

Proactivity and partnership: Expressing readiness to participate in the trial process for the curricula reflects the sense of responsibility and partnership between educational institutions and the educational center, as well as the private sector's desire to contribute to the success of educational reforms.

Continuous evaluation: Highlighting the importance of having evaluation teams and performance indicators indicates awareness of the need for periodic follow-up to ensure objectives are met. Involving teachers and administrators in the evaluation process enhances transparency and engages key stakeholders in the implementation.

Communication and coordination: Focusing on communication channels between the educational center, research and development, and schools highlights the need for a central support system to help overcome challenges. Additionally, strengthening cooperation between public and private schools demonstrates a commitment to achieving integrated efforts.

Flexibility in the plan: Referring to periodic review sessions and adapting plans reflects the importance of dynamically managing the educational process, rather than relying on rigid plans.

From these responses, the following points can be concluded in answering this question and the study question:

Advance planning is essential, not optional: The success of implementing the developed curricula depends on having a clear plan with defined objectives, timelines, and logical resource allocation. Testing the curricula with representative samples reflects a scientific approach based on evaluation before generalization.

The importance of public-private partnership: Involvement of institutions provides a practical model for how the private sector can contribute to educational reform, thereby enhancing opportunities for success.

Continuous evaluation ensures improvement: The presence of qualified evaluation teams and the use of clear performance indicators make it possible to identify challenges early, contributing to the improvement of the implementation process.

The need for flexibility and organization: Coordination between the educational research and development center and schools, along with flexibility in adjusting plans based on feedback, are key to achieving the desired goals.

A supportive environment is essential: Activating communication mechanisms, continuous training, and ensuring the availability of resources are factors that help overcome implementation obstacles and achieve the objectives of the new curricula.

How will the performance of schools be evaluated?

Officials in private educational institutions agree that the responsibility for evaluating the performance of schools lies with the Ministry of Education and the Educational Center, as they bear the primary responsibility for developing evaluation and assessment plans. However, institutions are key partners in the process, and they are expected to cooperate and contribute effectively to ensure the success of the project.

The evaluation tools deemed effective by the officials include:

Regular workshops: These aim to train administrators and teachers, discuss common challenges, and contribute to improving skills and fostering collaboration within the school community.

Questionnaires and interviews: These are tools for collecting qualitative data from teachers, students, and parents. They help identify obstacles and challenges facing the implementation of the curricula.

Key performance indicators (KPIs): These include student exam results, attendance rates, and the level of engagement in the educational environment. They provide quantitative criteria for assessing the quality of education.

Field visits: A direct method of monitoring the educational process in classrooms, allowing observation of interactions between teachers and students and assessing the real-world application of curricula.

In relation to the study question, the following can be concluded:

Evaluation is a strategic necessity: Every educational plan needs clear evaluation points, predetermined to ensure the achievement of its objectives. The success of the education development project relies on cooperation between the state (Ministry and Educational Center) and educational institutions.

Diverse evaluation tools: Tools such as Questionnaires, interviews, and performance indicators help provide a comprehensive view of performance. Field visits and regular workshops complement theoretical data with practical observations.

Continuous feedback: Analyzing data from evaluation tools helps improve performance and develop more effective strategic plans.

Key Insights

The main challenges in implementing the developed curricula in schools lie in the need for effective educational leadership, fostering community partnerships to support schools, and ensuring sustainable training for teachers and administrators. Schools face financial constraints and require gradual planning and adaptability to the new curricula. Technical and technological support, along with clear implementation policies, play a critical role in overcoming these challenges. To ensure success, the Ministry of Education and Higher Education, and the Center for Educational Research and Development must collaborate with schools, apply continuous evaluation, and utilize diverse tools such as workshops, surveys, and field visits to enhance the educational process.

Section Four: The Role of Technology and Digital Infrastructure

How important is technology in supporting the updated curriculum? How do you assess the readiness of schools in this regard?

Interviews highlighted the importance of technology and its use in classrooms. However, institutions lack complete readiness due to financial constraints, insufficient equipment, and disparities between urban and rural schools.

According to private school administrators, technology supports the updated curriculum and requires the use of computers, internet access, electronic screens, and artificial intelligence. These tools are particularly crucial for interactive programs that promote exploration, investigation, and

creativity among students. Digital literacy and skills like AI and ICT are foundational in the new curriculum.

Technology, being integral to modern curricula, fosters interactive learning and enables students to access content that better suits their needs. Schools vary in technological readiness, especially between free and private schools, as well as urban and rural areas. High costs prevent institutions from equipping themselves with advanced infrastructure, such as high-speed internet and modern laboratories.

How does management work to provide technological tools and necessary infrastructure? What are the priorities in this context?

Interviewed officials pointed out that private schools rely on self-sourced funds from tuition fees and donations. Ministry support is limited to public schools, leaving private schools to face financial challenges when implementing the new curriculum.

To address this, ministries must aid private schools in providing technological tools for teachers and students alike. Priorities include equipping classrooms with computers and internet access.

Currently, ministry assistance for technological tools and infrastructure is confined to public schools, though private schools also need support. Strategic plans by the ministry could involve evaluating the needs of all schools and allocating budgets to address them. Private school administrations often rely on tuition fees for technological updates and infrastructure improvements.

How Can Technology Use Be Improved in Schools to Support the Implementation of Developed Curricula?

According to officials from private educational institutions, the use of technology in education can be improved through:

Training for teachers and administrators to ensure their adaptation to new technological tools and their effective integration into the educational process.

Ongoing workshops to continuously develop their skills to meet the requirements of updated curricula.

Technology certification programs to identify schools with adequate technological infrastructure and encourage educational institutions to invest in upgrading their technical facilities.

Developing digital educational resources aligned with updated curricula to enhance interaction and engagement among students, supporting self-directed learning and broadening students' knowledge horizons. Incorporating modern technological tools helps deliver immersive and personalized educational experiences, deepens the understanding of complex concepts, and creates an engaging learning environment.

Providing internet access and modern devices to enable both students and teachers to easily access digital educational resources.

Assessing the impact of training and applied technologies to identify strengths and weaknesses, improve training strategies, and develop practical solutions to challenges.

Study-Related Insights:

Technology as a cornerstone of supporting updated curricula: The role of technology extends beyond providing tools to enhancing the educational process and promoting effective interaction and participation.

Training as a critical element: The success of technology integration relies on training teachers and administrators to ensure its effective incorporation into education.

Development of digital educational content: Interactive content boosts student engagement and supports self-learning.

Technology fosters innovation in education: The inclusion of STEAM principles and the integration of tools like VR and AI drive creative and distinguished learning experiences.

The importance of infrastructure: Ensuring access to the internet and modern devices guarantees the sustainability of technology applications in schools.

The necessity of continuous evaluation: Measuring the impact of training and technology usage contributes to performance improvement and the development of future strategies.

Key Insights

Technology is a fundamental part of supporting developed curricula, contributing to interactive learning and fostering creativity among students. Despite its significant role, schools face challenges in technological readiness due to infrastructure deficiencies and institutional disparities. To improve technology use, teachers and administrators must be trained, and digital resources aligned with new curricula should be developed. Infrastructure, such as internet and modern devices, is a priority for enabling access to digital resources. Finally, continuous evaluation of the impact of training and technology use remains key to enhancing educational performance.

Section Five: Student Support and Learning Environment

What is the administration's plan to provide necessary support for all students, including those with special needs?

According to officials in private educational institutions, their institutions aim to address the new curricula in a way that supports all students, particularly those with special needs. This is achieved by developing curricula tailored for them and adopting specialized teaching strategies, ultimately realizing the concept of an inclusive, healthy, and safe school.

Achieving these goals comes with challenges, primarily training teachers and providing specialists to work with students with special needs.

Officials believe that the developed curricula should meet the needs of students with special needs by offering diverse and specialized educational tracks tailored to their abilities, reflecting the shift towards inclusive education that acknowledges student differences. Special curricula should also include assistive tools, such as audiobooks and tactile letters, to facilitate learning.

Private institutions strive to provide a healthy and safe school environment, which is essential for effectively integrating all students, including those with special needs, into the education process. This school environment must meet the needs of all students to ensure the success of educational inclusion.

It is crucial to train teachers in specialized teaching strategies focused on addressing the needs of students with special needs, requiring the development of teacher skills in this area.

The 2030 plan in Catholic schools is a significant step toward making schools inclusive and accessible to all students, including those with special needs. However, this project requires fully preparing educators and schools, which is an ongoing effort that needs time, resources, and a clear vision.

What Do Teachers and Students Need to Ensure a Safe and Healthy Learning Environment? How Are These Needs Currently Being Met?

Officials in private educational institutions state that teachers must be trained in specialized teaching strategies focused on working with students with special needs. Such training is essential to provide effective and inclusive education that meets the needs of all students.

Teachers require updated educational resources, such as audiobooks and technological tools, to facilitate the learning process for students with special needs.

There must be specialist supervisors to guide teachers and assist them in implementing inclusive education strategies. This support contributes to the development of teacher skills and the improvement of education quality.

Students need programs that support their emotional and social aspects to create a comprehensive and safe learning environment that enhances their overall well-being and fosters their positive interaction with the educational environment. It is also necessary to provide a healthy and safe school environment with clean and appropriate study spaces that contribute to improving learning quality.

Securing financial support is a cornerstone for providing necessary resources, such as specialized educational tools, teacher training programs, and ensuring a suitable school environment.

Some institutions have worked on providing clean school environments, with a focus on safety measures to ensure a secure and healthy educational setting. However, continuous follow-up and additional improvements are required to ensure the sustainability of this environment.

How Does the Administration View Its Role in Enhancing Health Facilities and Ensuring a Safe Environment in Schools?

From the responses, the following can be concluded:

The administration strives to establish a specialized department for students with special needs to ensure their effective integration within a safe and suitable school environment. This reflects a commitment to providing an inclusive environment that guarantees students with special needs opportunities for learning and success.

The administration is committed to providing comprehensive support for students, including educational, psychological, and social support. This helps create a safe school environment that enhances students' psychological and social well-being, thus supporting their overall health and their ability to interact positively with the school.

The administration focuses on developing individualized plans for students with special needs, including specialized teaching, assessment, and therapeutic approaches. This indicates the allocation of resources and time to meet each student's needs, whether in psychological therapy, physical rehabilitation, speech therapy, or overcoming learning difficulties.

The administration demonstrates a commitment to implementing decisions, laws, and decrees aimed at organizing the school environment and ensuring its safety. This reflects the administration's dedication to adhering to educational and legislative policies that guarantee a safe and healthy educational environment while contributing to organized school operations.

By developing strategic plans to equip schools with necessary facilities, the administration ensures that the school environment meets the required standards in terms of educational and health-related provisions. This includes equipping schools with the tools and resources needed to ensure a healthy and safe learning environment.

The administration bears a significant responsibility in fostering a healthy and safe school environment by providing comprehensive support and well-thought-out planning. This includes its role in preparing specialized facilities, implementing individualized plans, and ensuring compliance with applicable laws. This reflects the administration's desire to achieve an inclusive educational environment that respects the needs of all students, especially those with special needs, thereby enhancing their opportunities for learning and development.

Key Insights

Educational institutions aim to provide an inclusive educational environment that supports all students, including those with special needs, through specialized curricula and teaching strategies. Achieving this requires training teachers and employing specialists to meet the diverse needs of students. The administration also works to ensure a healthy and safe environment by providing clean and secure school facilities, enhancing students' well-being and positive engagement.

Furthermore, the administration focuses on supporting teachers through ongoing training and access to modern educational tools. It is also responsible for implementing laws and decrees that ensure a safe school environment, thereby improving learning opportunities for all students.

Section Six: The Administration's Vision for Future Development

What Is Your Vision for the Future of Education in Lebanon After Implementing the Updated Curricula?

Private educational institution officials did not express much optimism due to the delay in the release of the updated curricula and their lack of access to its content. However, they highlighted that implementing the updated curricula could lead to the following:

Development of Life and Digital Skills: Education is expected to integrate more with life skills, preparing students for the demands of the labor market. The focus will be on developing critical thinking, innovation, and problem-solving skills, along with technological competencies such as programming, artificial intelligence, and data analysis.

Equipping Students for Rapid Market Changes: Education will aim to provide students with knowledge aligned with rapid market changes, helping them prepare for future challenges.

Shift Towards Interactive Teaching Methods: Educational methods will become more interactive, adapting to the needs of individual students. Flexible, technology-based teaching approaches will encourage self-learning and active engagement with the educational environment.

Flexible Curricula: The curricula will be designed to meet the ever-changing needs of the labor market, enabling students to acquire the necessary skills.

Fostering Critical Thinking and Life Skills: Greater emphasis will be placed on developing critical and analytical thinking, as well as life skills such as collaboration and teamwork. Teachers will prepare students to make independent decisions and solve problems creatively, helping them navigate personal and professional challenges.

Integration of Technology: Technology will play a fundamental role in the future of education. Digital tools will improve access to educational resources, while innovations such as virtual reality (VR) and augmented reality (AR) will provide more interactive and engaging learning experiences. Advanced educational platforms will enhance learning by making it more personalized and flexible.

Focus on Social and Practical Skills: Developing social skills like communication, leadership, and teamwork, alongside practical skills such as critical thinking and decision-making, will be central to preparing students for a dynamic labor market.

Continuous Teacher Training: Regular training for teachers in modern teaching methods and technology integration will be crucial. Teachers will need ongoing professional development to

address new challenges, such as using technology in classrooms and delivering innovative learning experiences. This will require intensive training programs that enable teachers to interact effectively with students using technological tools.

Adapting to Diverse Work Environments: These skills will help students adapt to various work environments and enhance their ability to interact with multicultural teams.

Technological and Human Resource Support for Schools: Adequate support in terms of technological infrastructure and trained personnel will be vital to providing a superior educational experience. This includes robust infrastructure to maximize the benefits of modern technologies.

Sustainable Investment in Education: Continuous investment in the education sector will be necessary to modernize facilities and provide the tools required for teachers and students.

Government and Community Commitment: A strong commitment from both the government and the community is essential to foster an innovative educational environment and provide the financial and human resources needed to update schools and teaching methodologies.

Public-Private Partnerships: Collaboration between the public and private sectors will be key to aligning education with future needs, improving its quality, and addressing the demands of the evolving labor market.

Funding for Private Schools: With 70% of Lebanese students relying on private schools, funding these schools is essential to ensure their sustainability. This funding will improve the quality of education and alleviate financial burdens on low-income families.

Key Insights

From the answers provided, it can be concluded that the future of education will heavily rely on integrating technology, developing students' life and professional skills, and ensuring continuous teacher training. Education will become more interactive and tailored to meet the needs of students and the labor market. Schools will require ongoing support from the government and the community to provide a progressive and evolving educational environment. This will enhance the learning experience and motivate students to engage and grow.

What Are the Essential Steps the Ministry Should Take to Achieve Comprehensive and Sustainable School Development?

Private school officials respond by stating:

Integrating Technology into Education: Introducing technology into education has become a pressing need to meet the requirements of modern digital education. Improving technological infrastructure will enhance the use of digital tools in education, making learning more interactive and effective.

Providing Educational Resources: Supporting updated curricula with adequate resources is a cornerstone of enhancing education quality. Innovative resources help achieve curriculum objectives and develop students' life skills.

Continuous Training for Educators: Ongoing training for teachers and principals ensures they stay updated with the latest teaching and management methods, leading to an improved teaching and learning environment. This enhances the efficiency of education sector professionals.

Updating Curricula: Developing curricula to align with technological advancements and current needs ensures modern and inclusive education.

Improving School Facilities: Investing in modernizing school facilities with advanced technology and ensuring a safe and healthy learning environment forms the basis for comprehensive and sustainable development.

Key Insights

For comprehensive and sustainable school development, the ministry should focus on integrated strategies that include:

Financial support for free and low-tuition private schools to alleviate the burden on families and ensure education continuity.

Incorporating technology into education by improving infrastructure and equipping schools with appropriate digital tools.

Providing innovative educational resources aligned with updated curricula to enhance the educational process.

Investing in continuous professional development for teachers and principals to ensure high-quality education.

Continuously updating educational curricula to keep pace with rapid societal and labor market changes.

Improving school facilities to create safe and conducive educational environments.

How Do You Plan to Sustainably Support Schools, School Leadership, and Teachers Effectively?

Private institution officials focused their answers on the following points:

Training Workshops: These workshops are essential for developing the skills of teachers and school leaders. They enhance professional competence by equipping participants with the latest educational strategies and technological tools.

Maintaining a Positive School Climate: Creating a supportive and motivating environment significantly improves educational performance and the psychological well-being of both teachers and students. This fosters teamwork and creativity within schools.

Providing an Encouraging Learning Environment: Emphasizing creativity, innovation, critical thinking, and problem-solving enhances schools as dynamic learning spaces, preparing students for challenges.

Application of Technology and Artificial Intelligence: Integrating modern technology into education enhances access to learning resources, increases educational efficiency, and improves technological skills for students and teachers.

Developing Educational Materials: Providing updated educational resources aligned with updated curricula ensures that students' needs are met and enhances the learning experience.

Enhancing Community Partnerships: Collaborating with local and international partners facilitates the exchange of expertise and provides the necessary resources to support the educational process.

Regular Evaluation Systems: Establishing regular evaluation systems helps measure the effectiveness of current plans and allows for adjustments according to school needs, ensuring continuous improvement.

To ensure sustainable support for schools and teachers, comprehensive and integrated strategies should focus on:

Continuous Training: Organizing specialized training workshops to develop professional competencies.

Creating a Positive Environment: Establishing a motivating climate that fosters creativity and innovation within schools.

Using Modern Technology: Incorporating artificial intelligence tools and technology to support education.

Providing Appropriate Educational Resources: Developing innovative textbooks and offering interactive teaching materials.

Enhancing Partnerships: Building cooperative relationships with local and international entities to support education.

Implementing an Effective Evaluation System: Regularly collecting feedback to improve strategies based on data.

Key Insights

The future vision of educational administration in Lebanon indicates that education will transition towards developing life and technological skills, emphasizing critical thinking, innovation, and problem-solving. Updated curricula will integrate technological skills such as programming and artificial intelligence, enabling students to adapt to future challenges. This transformation requires educational methods to become more interactive and tailored, with continuous teacher training and technological infrastructure development.

In the future, sustained investment will be necessary to provide suitable educational environments, including equipping schools with digital resources and training educational staff.

At the ministry level, supporting schools will require improving infrastructure, providing educational resources aligned with updated curricula, and continuously revising curricula. Teacher development will necessitate training workshops and digital education strategies, alongside fostering partnerships with the public and private sectors.

Response to the Fifth Research Question

After reviewing the results of interviews conducted with students and educational officials in private institutions, and in answering the fifth research question, the following conclusions can be drawn:

Implementing updated curricula requires reconsidering the physical infrastructure of schools and achieving a balance between schools in terms of equal opportunities and providing essential supplies necessary for curriculum implementation.

The preparation and training of school principals must be reassessed to enable them to lead the educational process effectively and create a safe educational environment.

Teachers urgently need professional development programs, and some educational institutions have expressed their readiness to provide technical support to teachers. Additionally, there is a necessity to reinforce schools with specialists.

Financial readiness of schools appears insufficient. Private educational institutions are waiting for ministry support to initiate the required changes and infrastructure development associated with implementing the curricula.

Performance evaluation remains under the ministry's jurisdiction, as it sets the curricula and will therefore establish evaluation standards to assess performance.

6. Analysis of the Results for the Sixth Research Question: What are the needs and requirements for implementing developed curricula from the perspective of stakeholders in schools?

6.1. Results of Interviews with Educational Officials (MEHE and CERD), and Educational Experts

To identify the needs and requirements for implementing the developed curricula from the perspective of stakeholders in schools and the educational community, it was essential to address educational officials with a set of questions covering several key areas related to the resources needed for curriculum implementation. Interviews were conducted with officials from the Ministry of Education and Higher Education, including the Director General of Education, the President of the Center for Educational Research and Development, the Director of Primary Education, the Director of Secondary Education, and educational experts involved in curriculum development. These areas were distributed as follows:

Section One: General School Readiness

The first question focused on: How would you describe the current state of school infrastructure, and what elements need improvement to achieve success in implementing developed curricula?

Infrastructure Challenges

The first point in responses to this question addressed infrastructure challenges, as these constitute a significant barrier to developing the educational system. Various aspects of this challenge and its impacts were highlighted. Infrastructure in many schools is still unable to meet the requirements of modern curricula, whether in terms of technology, laboratories, or internet connectivity.

This issue is exacerbated in the technical field, as educational officials stated they face "significant difficulty in providing sufficient educational technologies, which may limit the ability to implement advanced curricula in classrooms." These challenges impact the effectiveness of the educational process, "as the absence of modern technology severely hampers the implementation of diverse educational activities, thus limiting opportunities for effective learning."

Importance of Teacher Training

Developing educational staff is a central element in successfully updating curricula. According to educational officials, "we need to continuously train teachers on how to apply modern curricula. This requires the development of more specialized training programs and improving their effectiveness." The importance of focusing on professional competencies is evident, as "teachers must be trained on competencies rather than just academic content. Modern curricula require renewed teaching skills."

Redefining School Management Roles

Educational transformation necessitates rethinking school management roles and developing their responsibilities. "School management should shift from purely administrative tasks to educational leadership. We need principals who can support and motivate teachers to achieve educational goals." Here, the role of the principal as an educational leader is emphasized, "as principals should be part of the curriculum development and implementation process. Their role is not only administrative but also educational leadership, guiding change within their schools."

There is a need for realignment of administrative priorities, "as principals often focus on logistical issues, whereas teachers require genuine educational support that enables them to implement curricula effectively."

Resource Distribution Inequality

Fair distribution of resources is a crucial issue in curriculum development, as disparities between schools present a challenge in achieving equity. This issue directly impacts educational quality and equal educational opportunities. This is particularly evident in remote provinces and less privileged communities, where disparities in educational resource distribution are noticeable. According to educational experts, "effective strategies are needed to ensure equitable resource distribution among schools, especially in remote provinces." This problem is especially pronounced between the public and private sectors. The widening gap between public and private schools in resource allocation negatively impacts the quality of education in public schools. "The significant disparity between private and public schools in distributing educational resources makes it difficult for public schools to provide quality education that matches modern developments." Addressing this issue requires comprehensive strategies and clear implementation plans. Additionally, monitoring and evaluation mechanisms are needed to ensure equitable resource distribution. Educational officials believe that "it is essential to develop clear plans to ensure that all schools, regardless of location or financial status, receive equal support and resources."

Technology as a Core Element of Transformation

Technology plays a fundamental role in modernizing and developing education. Its role is evident in enhancing the learning process and improving outcomes, especially in the context of global shifts toward digital education. Challenges in this area range from providing technological infrastructure to training staff in its usage. Educational officials find that "technology offers tremendous opportunities for education, but we face issues in providing sufficient devices and ensuring internet stability." To fully utilize technology, innovative strategies are required beyond internet reliance. This includes developing independent technical solutions and providing diverse digital educational tools. "The use of technology should transcend mere internet usage to integrating digital educational tools that can function offline, such as Intranet-based solutions." There is also a need to shift the perception of technology's role in education, moving from a supplementary element to an essential component of the educational process. "Technology is not a luxury but a necessity. If provided appropriately, it can significantly improve the quality of education."

Government Role in Supporting Education

Government support is a crucial factor in the success of educational system development. This role extends beyond funding to include policy development and implementation. It also involves creating the necessary legislative and regulatory frameworks to ensure educational quality. "The government's role is not limited to providing funding, but requires clear educational policies that support sustainable changes in the education system." The government's role is emphasized in infrastructure development and ensuring equal educational opportunities. This requires sufficient financial resources and equitable distribution. According to educational officials, "we need government policies that provide the necessary support to develop school infrastructure and ensure that all students receive equal educational opportunities." Ultimately, successful transformation in the educational system requires long-term governmental commitment, encompassing strategic planning and sustainable funding. "No educational transformation can occur without active government involvement in funding and future planning."

Summary

The findings indicate a range of needs and requirements for implementing developed curricula in schools, highlighting several key aspects. Firstly, the need for infrastructure improvement, especially in technology and internet, which remains a major barrier to implementing modern curricula. Secondly, ongoing teacher development through specialized training programs to enhance teaching competencies beyond academic content. Thirdly, success in curriculum implementation requires a shift in school management roles to become educational leadership supporting teachers. Fourthly, resource distribution inequality remains a significant challenge, necessitating strategies to ensure equity among schools. Finally, technology plays a critical role in educational development, but requires comprehensive government support to provide appropriate infrastructure and sustainable support.

Second Question: What are the challenges related to providing essential educational facilities, such as classrooms, laboratories, and libraries, and how do these challenges impact the learning process?

Responses to this question focused on several aspects:

Limited Space Availability

Responses indicated that inadequate or limited spaces pose a significant obstacle to school activities. According to educational officials, "the available spaces within schools do not meet the requirements of modern activities, limiting the possibility for diversity and accommodating large numbers of students." There is a pressing need for flexible, multi-use spaces to enable simultaneous implementation of sports, artistic, and educational activities. "The situation varies widely between schools. Some are equipped with laboratories, playgrounds, and advanced infrastructure, while others lack even basic essential facilities. This disparity underscores the need for a comprehensive plan aimed at achieving equity between schools, particularly regarding green

schools and effective facilities, focusing on readiness to meet curriculum requirements, including enhancing student well-being and ensuring access to tools that facilitate competency acquisition."

Shortages of Resources for School Activities

Participants' responses indicated that many activities face challenges related to resource shortages, both in terms of physical and human resources. Educational officials emphasize the need for specific budgets to support activities like sports, auditorium, and music, as current capabilities fall short of meeting student needs. "Although some schools have basic facilities, implementing advanced educational programs requires additional tools and equipment to effectively activate activities." A lack of specialized trainers and teachers in various activities leads to shortcomings in achieving their educational objectives. School activities foster competencies such as creativity, digital skills, sports, and extracurricular activities that are occasionally required.

Need for Improving Safety and Security in the School Environment

A safe and stable environment is essential for supporting the educational process and achieving its objectives. Ensuring physical and psychological safety for students and teachers contributes to enhancing focus and creativity, fostering a positive environment conducive to learning. Educational officials highlight that "the absence of safety within schools disrupts activities and causes discomfort among students, necessitating improvements in protective measures such as fences and surveillance systems." Safety encompasses not only physical measures but also promoting a culture of dialogue and communication between teachers and students to reduce school violence and create a supportive educational environment. Therefore, investing in improving safety measures, such as upgrading infrastructure, implementing effective surveillance systems, and training staff to manage crises, is essential for achieving a supportive and secure educational setting.

Section Two: Technology and Digital Infrastructure

The question posed was: To what extent is the availability of modern technology sufficient in schools, and what areas require additional support to improve digital education? How do you evaluate the impact of internet quality and speed on the use of digital educational resources, and what proposed solutions exist to improve digital connectivity in schools? What programs or educational systems are essential for training teachers and ensuring the successful implementation of developed curricula?

The responses were multifaceted, covering several aspects:

Use of Technology in Educational Process

Technology emerges as a crucial element in enhancing the educational process. "Modern technology has become essential for effective learning." "Technological tools open new horizons for creative teaching and student engagement." Responses also highlight how digital platforms offer unprecedented opportunities for interaction and communication within the educational process.

Additionally, technology facilitates personalized education according to each student's abilities and needs. "Digital learning enhances student autonomy and develops their ability to engage in self-directed learning." "Technology can be effectively utilized if suitable tools are provided at reasonable costs, aiding students in achieving their goals amidst ongoing advancements."

Alternative Technologies

The responses indicate the importance of adopting technological solutions that cater to various contexts and capabilities. "Alternative technological solutions provide schools with limited resources the opportunity to embrace the digital shift." Open-source software serves as a cost-effective alternative. "Low-cost mobile devices offer equitable opportunities for digital learning." Cloud-based solutions reduce infrastructure costs and simplify access to educational resources. "Alternative technologies help bridge the digital gap between different regions."

Management of Digital Resources

Effective management of digital resources is emphasized as crucial for successful technological transformation. "Centralized educational platforms facilitate the organization and management of learning processes." Cloud storage ensures secure and continuous access to educational resources, centralizing all sources on the school's server. "It is essential to make technology widely available at lower costs, contributing to equitable access for students to the skills required by modern curricula." In an increasingly digital world, these tools are becoming more accessible and widespread, allowing for swift and effective advancement in the educational system.

Section Three: Leadership Competencies for School Administrators

The question: How do you evaluate a school principal's vision in implementing developed curricula, and what leadership skills are essential for achieving success? What role does administration play in enhancing teacher competencies, and how can these competencies be strengthened through continuous training programs? How can the partnership between administrators and teachers be fostered to encourage positive interactions with new curricula?

The responses addressed the following aspects:

Leadership Skills for School Principals: Curriculum Understanding

Respondents emphasized that principals need a deep understanding of developed curricula to effectively implement them. "The principal leads this change." "Principals require specialized courses on competencies and the new assessment system to better understand the content and manage their teams." This highlights the importance of intensive training programs to enhance principals' knowledge of developed curricula and their implementation mechanisms.

Leadership Partnership

Interviews highlighted the role of principals as collaborative leaders who enhance relationships with teachers, fostering a cohesive team. "A partnership between principals and teachers contributes to effective curriculum implementation." "A successful principal is one who creates a

work environment based on trust and continuous collaboration." These responses underline the importance of training principals in participatory leadership skills to achieve shared educational goals.

Change Management

Leading change requires preparing principals to handle transformations associated with new curricula. "Change management should be well-planned, with leadership playing a crucial role in this process." "Specialized training programs are needed to help principals navigate challenges and ensure the sustainability of change." This reflects the need for targeted training programs focused on effective change management.

Awareness of Educational Innovations

Results show a limited awareness among principals regarding educational innovations, such as integrated competencies and modern assessment methods. "Continuous updates are necessary for principals to stay informed about contemporary practices." "Sustainable training programs should be organized to enhance principals' understanding of educational innovations." These observations emphasize the need for ongoing professional development to elevate principals' competencies and keep them updated with advancements.

Interdisciplinary Coordination

Developed curricula require a well-integrated coordination between subjects to ensure a comprehensive learning experience. Respondents believe "integrating subjects helps students understand topics more deeply." "Lack of coordination results in repetition or conflict in information." This underscores the importance of implementing clear coordination mechanisms between subjects to avoid redundancy or conflict, ensuring a unified curriculum implementation.

Holistic Curriculum Understanding

Respondents highlighted the importance of principals viewing the curriculum as an integrated whole, rather than separate subjects. "Principals need to understand the curriculum as a cohesive system." One educational official emphasized that "holistic curriculum understanding enhances teaching quality." These responses call for training programs that focus on comprehensive curriculum development and implementation.

Coordination Challenges

Interviews revealed that a lack of coordination between subjects creates challenges, leading to repetition and inefficiencies. "Coordination challenges remain the greatest obstacle to effective implementation." "Well-structured coordination plans ensure material integration and achieve educational goals." These insights highlight the need for comprehensive, effective plans to improve subject coordination and overcome execution challenges.

Summary

The responses demonstrate the crucial role of school administrators in successfully implementing developed curricula. The essential leadership competencies include a deep understanding of

curricula, participatory leadership, change management, and awareness of educational innovations. Furthermore, effective coordination between subjects is vital for a comprehensive educational experience. Continuous training programs are necessary for both administrators and teachers to enhance their competencies and keep pace with evolving educational standards. This collaborative effort ensures a more integrated, effective, and adaptive approach to modern education.

Section 4: Challenges in Implementing Developed Curricula

This section covers three questions:

First: What are the main challenges schools face in implementing developed curricula, and how do these challenges affect educational quality?

Second: How do government policies and community support impact a school's ability to effectively implement new curricula?

Third: How can schools manage economic and social crises effectively to ensure the continuity of education and the implementation of developed curricula?

First Question Results: Challenges in Implementing Developed Curricula

Material and Human Challenges

Significant obstacles to effective curriculum implementation include "difficulty in providing necessary materials and tools for practical activities, forcing some to rely solely on theoretical instruction." "Despite ambitious plans to develop curricula, a lack of funding impacts the provision of modern technologies and suitable educational resources."

Impact of Government Policies and Community Support

Government policies have a noticeable impact on curriculum implementation. "Frequent changes in educational policies disrupt the learning process and affect the stability of curricula." Educational officials emphasize the need for "consistent and stable policies to ensure continuous development." Community support, such as donations and providing basic needs, helps schools but is insufficient to meet all requirements. "Government policies provide moral support, but financial assistance is lacking, especially in remote provinces that require greater support."

High Flexibility in Planning and Implementation

Teacher Competence

Shift to Competency-Based Approach

Transitioning to a competency-based approach presents a major challenge for teachers as it requires a shift from content-focused instruction to skill development. "We need a radical change

in how we think and plan lessons." "Focusing on competencies requires greater effort in preparing and designing practical activities." Teachers require continuous support to understand and effectively apply competency-based teaching.

Continuous Training

Interviews highlight the importance of ongoing professional development. "Training must be practical and connected to real-life applications, not just theories." "We need practical workshops where teachers can exchange hands-on experiences." "Short-term courses are insufficient; we need extended training programs throughout the academic year with continuous follow-up." "Online training can help develop skills without interfering with class schedules."

Training Follow-up

There is a strong emphasis on measuring the impact of training. "We need clear indicators to evaluate teacher performance post-training." "Classroom observations reveal how effectively teachers apply what they've learned." Continuous feedback from supervisors' aids in improving performance and correcting mistakes. "An electronic system is needed to document and track teachers' professional development."

Educational Leadership

Weak Educational Supervision and Curriculum-Aligned Training

Weak supervision presents a significant challenge. One educational official states, "Excessive administrative duties reduce the time available for technical monitoring of teachers." "Specialized training is needed for supervisors to effectively implement developed curricula. Supervisors should provide practical examples, not just theoretical observations." "Enhancing supervisors' skills in guidance and mentorship is essential for successful curriculum implementation."

Integrated Leadership

Emphasizing balanced educational leadership is crucial. "A successful leader balances administrative demands and the educational needs of teachers." "The principal should lead by example in professional development and stay updated with educational advancements." "Collaborative leadership is necessary to involve teachers in decision-making processes."

Cultural Challenges

Traditional mindsets influence curriculum implementation, requiring intensive efforts. "Changing traditional teaching culture requires continuous efforts and patience." "Some teachers resist change due to increased workload." "Change begins with shifting the mindset of school leadership." "Transitioning to new assessment methods requires intensive training and practical examples." "Parents also need awareness about the importance of skills-based evaluation over traditional grades."

Gradual Transition

Educators emphasize the importance of a gradual implementation process. The President of the Center for Educational Research and Development explained: “During our work on the foundational papers supporting the National Curriculum Framework, we conducted a pilot implementation with a small sample of schools. It was a significant experience in terms of the competency-based approach and assessment policy.” She continued, “We will implement the curricula gradually to ensure a smooth process that takes its natural course.”

A senior expert involved in curriculum development added, “The pilot implementation in a sample of schools provided us with an opportunity to correct errors and improve practices.” The President of the Educational Center further commented, “We have developed a plan for a full transition towards qualitative assessment, taking into account the specific circumstances of each school.” An educational official emphasized, “The experience has proven that rushing full implementation leads to greater resistance from the school community.”

Section 5: Future Needs

The question is: How do you view schools’ readiness to receive training programs, and what types of programs do you believe would be most beneficial for developing educational competencies?

Response Highlights for Question 5:

Integration Between Curricula and Activities

Supportive Activities

Participants emphasize the importance of learning through supportive activities. “Projects linking different subjects, like the ‘Greening Education’ project combining science, mathematics, and arts, are essential.” Curricula should include practical laboratory activities to enhance students’ understanding of theoretical concepts. “Educational auditorium can also be used to develop students’ communication and expression skills.”

Coordination Across Subjects: A Comprehensive Curriculum

Participants stress the need for cognitive integration between subjects. “Periodic meetings should be held to coordinate content and avoid repetition across subjects.” “Collaboration between teachers from different subjects should focus on practical applications of concepts.” Educational officials highlight the necessity of designing curricula holistically. “Guidelines for teachers should outline intersections between subjects and how to leverage them in teaching.”

Variations in School Readiness

Officials identified three levels of school readiness:

“Some schools will face minimal difficulty in implementation and can quickly adapt to new programs (schools implementing advanced Western programs).”

"Moderately developed schools will require some training and will respond cooperatively."

"Highly traditional schools may struggle significantly with new projects, as curriculum terms may be foreign and difficult to understand in their educational context."

A three-tiered training plan is proposed to accommodate varying readiness levels, allowing schools with different needs to receive appropriate levels of support.

Question: What are the basic needs of schools to effectively implement developed curricula, in terms of human and material resources?

The responses to this question addressed several aspects related to the basic needs of schools, as follows:

Development of Digital Infrastructure:

Updating laboratories and educational facilities: Equipping laboratories with the latest devices and equipment, and providing appropriate sports and cultural facilities. "Ensuring a stimulating educational environment equipped with the latest technologies."

Providing high-speed networks: Ensuring reliable and fast internet connectivity in all educational institutions, and supplying laptops or tablets for students and teachers. "Addressing the digital gap is a significant challenge for implementing online education," as mentioned in the responses.

Equipping classrooms with interactive technologies: Using smart boards and interactive screens, and providing modern educational software.

Developing digital educational platforms: Creating interactive educational platforms offering diverse digital content, along with tools for communication and interaction between students and teachers.

Enhancing Professional Development:

Designing innovative training programs: Developing training programs focusing on practical and applied skills, utilizing modern training methods such as project-based learning and collaborative learning. "The necessity for professional training to emphasize practical and applied skills."

Developing online learning platforms for teachers: Providing digital platforms for teachers to access diverse educational and training resources, and engage with other experts.

Activating professional learning communities: Establishing virtual or physical communities that bring teachers together to exchange experiences and knowledge, and discuss educational challenges and issues.

Focusing on 21st-century skills: Integrating training programs with skills such as critical thinking, problem-solving, creativity, communication, and collaboration, "highlighting the importance of 21st-century skills in training programs."

Activating Community Partnerships:

Establishing advisory community councils: Forming councils that include representatives from the local community, parents, and the private sector, to participate in setting educational plans and programs.

Developing volunteer educational programs: Encouraging community members to volunteer in educational institutions to support students and teachers.

Strengthening partnerships with the private sector: Signing agreements with companies and private institutions to provide financial and technical support for education. "Activating the role of the private sector in supporting educational initiatives."

Activating the role of parents' councils: Strengthening the role of parents' councils in monitoring student performance and contributing to educational development. Building effective communication channels between schools and families, encouraging parental involvement in school activities. "Strengthening the partnership between schools and families improves educational outcomes," and "the importance of activating the role of parents' councils in supporting the educational process."

Utilizing the local community as a significant source of educational expertise and resources: Inviting local experts to conduct workshops or lectures for students, and using community facilities and resources in educational activities. "The local community is a vital source of educational expertise and resources."

Developing Educational Policies:

Establishing a clear strategic vision for education: Defining clear and specific educational goals, and setting strategic plans to achieve these goals.

Adopting flexible and adaptable policies: Formulating educational policies that consider the rapidly changing society and labor market. "Educational policies need flexibility to keep pace with global changes."

Engaging all stakeholders in decision-making: Ensuring the participation of teachers, students, parents, and the local community in shaping educational policies and programs. Educational authorities emphasize "the need for the inclusion of all stakeholders in decision-making."

Developing accountability and evaluation mechanisms: Implementing clear mechanisms to evaluate the performance of educational institutions and measure the achievement of educational goals.

Addressing Economic and Social Challenges:

Ensuring adequate funding for education: Increasing spending on education and allocating sufficient financial resources to develop infrastructure and provide educational resources. Educational officials stress that "economic crises directly impact the availability of basic school needs," and emphasize "the importance of innovative solutions to overcome financial challenges."

Developing social support programs for needy students: Providing scholarships and financial assistance for underprivileged students, and offering psychological and social support services.

Adapting educational programs to community economic conditions: Designing educational programs that align with local labor market needs, and offering opportunities for vocational training and employment. In this regard, educational officials highlight "the importance of adapting educational programs to community economic conditions."

Strategic Vision:

Developing measurable and evaluable strategic plans: Establishing specific and measurable strategic plans, setting clear performance indicators to evaluate progress in achieving goals. Educational authorities emphasize "the importance of developing strategic plans that are measurable and evaluable."

Prioritizing development according to community needs: Identifying the most critical areas requiring development in the educational system, based on community needs and labor market demands. Educational authorities believe "there is a need to prioritize development according to community needs."

Strategic planning should account for future changes: Plans should consider future changes such as technological advancements, demographic shifts, and changes in the labor market. Officials assert that "strategic planning should take future changes into account."

Summary

It is evident from the above that schools in Lebanon face significant challenges in implementing developed curricula, primarily due to a lack of material and human resources, such as educational tools and modern technologies. Additionally, frequent changes in government policies create confusion in implementation processes. Government policies and community support remain insufficient, especially in remote provinces. Furthermore, schools face difficulties in enhancing teacher competencies, with a significant emphasis on transitioning to competency-based education and continuous training being essential for improving educational outcomes. Moreover, ensuring digital infrastructure and implementing innovative, flexible training programs are crucial factors for the successful implementation of developed curricula and achieving sustainable education in Lebanon.

Section Six: Expectations for Implementing Developed Curricula

Question: How do you expect the implementation of developed curricula to impact the quality of education, and what indicators will be used to evaluate this impact? How can educational institutions improve expectations regarding the implementation of developed curricula to ensure successful learning outcomes?

To ensure the success of learning outcomes when implementing developed curricula, educational experts emphasize the importance of several key areas: understanding the curriculum components, continuous training, and flexibility in adjusting approaches and differences.

Understanding Curriculum Components

Respondents stress the importance of a comprehensive understanding of the curriculum components as a crucial step towards success. "Schools need a deep understanding of the curriculum's goals and components to implement it effectively." "A comprehensive understanding of the curriculum helps teachers connect activities with educational objectives more effectively."

Continuous Training

Participants highlight that continuous training for teachers and administrators is essential for successfully implementing developed curricula. "Training should be targeted and designed to meet the diverse needs of teachers, with regular follow-up to evaluate its impact."

Flexibility in Adjusting Approaches

Flexibility in dealing with the implementation of developed curricula is necessary to overcome challenges that may arise during execution. "Continuous adjustments based on field feedback improve the educational process." Educational authorities emphasize the need for adaptability to challenges, whether in resource availability or students' comprehension of curriculum content.

Benefits of Developed Curricula

Enhancing Creativity and Critical Thinking

Developed curricula aim to encourage students' creativity and critical thinking skills. These curricula offer innovative teaching methods to stimulate students in analyzing and solving problems. Educational officials believe that "what distinguishes these curricula is their ability to make students think outside the box and pose questions they wouldn't have asked otherwise." "They reshape the role of the learner to become more creative and aware, aligned with 21st-century requirements."

Integration of Technology and Inclusive Education

Developed curricula focus on integrating technology into the educational process, opening new horizons for students to access diverse sources and improving the learning experience. Officials

state that "the use of digital tools in the classroom brings a qualitative leap in students' grasp of concepts." Additionally, they support inclusive education, blending activities inside and outside the classroom, which enhances self-directed and interactive learning opportunities.

Improving Education Quality and Efficiency

According to respondents, developed curricula contribute to improving education quality and raising academic achievement levels by focusing on life skills and core values. "These curricula make students more prepared to face real-life challenges," and aim to create well-rounded individuals who are capable of critical thinking and problem-solving independently.

Success Indicators

Respondents suggest that developed curricula should rely on both national and international indicators to evaluate success, as these indicators can help identify the achievement of educational goals and guide improvements. "Using performance indicators provides a clear picture of student progress and the success of curricula in achieving their objectives." These indicators highlight positive aspects that can be built upon and areas requiring development.

Expectations for Implementing Developed Curricula

Question: How do you expect the implementation of developed curricula to impact the quality of education, and what indicators will be used to evaluate this impact?

Responses focused on the following areas:

Monitoring and Evaluation Mechanisms

Lack of Follow-Up

Interviews indicate that weak monitoring mechanisms for implementing new curricula pose a significant challenge. Educational officials state that "implementation will not succeed without a clear follow-up plan." "Effective monitoring mechanisms contribute to improving results and ensuring quality implementation." This highlights the need for developing comprehensive monitoring systems to support the implementation of new curricula.

Performance Evaluation

Respondents emphasize the need for clear standards for evaluating the performance of administrators and teachers. "Evaluation is effective when based on transparent and clear criteria." One respondent added, "Good evaluation criteria help improve overall performance." These responses call for adopting detailed and comprehensive performance evaluation criteria.

Collaborative Evaluation

Respondents point out the importance of collaboration between administrators and teachers in evaluating curriculum outcomes. Educational experts assert that "joint evaluation between administrators and teachers leads to performance improvement." They stress that "collaborative evaluation enhances transparency and shared responsibility." These points highlight the necessity of fostering partnerships in evaluation to achieve curriculum goals.

Summary

From the interviews with educational officials and the key points discussed in each section, the following overall insights were derived:

Many schools in Lebanon are not yet equipped with the infrastructure necessary to meet the demands of modern curricula, such as technology, laboratories, and internet connectivity.

There is difficulty in providing adequate educational technologies.

Equity in resource distribution remains an issue with significant disparities between schools.

Creating a safe and comfortable educational environment is a challenge for many schools.

Continuous teacher training on implementing modern curricula is essential.

There is a need for the development of updated training programs.

Assessment mechanisms require a review.

Leadership roles in schools need re-evaluation.

Government involvement in supporting education is crucial.

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