

The Role of Ready-Made Digital Curricula in Enhancing Primary Schools' Response to Educational Crises in the Nablus Governorate

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Abstract

The In light of the continuing exceptional circumstances in Palestine and the political and economic instability affecting all sectors, particularly education, this study examines the recurring disruptions to the educational process and the resulting increase in students' learning loss. It focuses on one strategic solution: the use of ready-made digital curricula delivered through educational platforms. The study adopted a descriptive-analytical approach to explore the role of these curricula in supporting educational continuity. The findings revealed the necessity of addressing repeated educational disruptions—which vary across Palestinian regions according to political conditions—through proactive planning rather than reactive responses. Statistical analysis showed that ready-made digital curricula significantly enhance the ability of primary schools in Nablus Governorate to respond to educational crises, compensate for lost learning, and provide a reliable alternative to conventional e-learning in many situations. Based on the findings, the study recommends strengthening the integration of ready-made digital curricula in schools, especially at the elementary level, and establishing an enabling environment for officially adopting digital learning platforms across all subjects. It also recommends supporting private educational platforms, training parents to use these systems effectively, and developing technical solutions that reduce dependence on internet connectivity.

Keywords: *Artificial Intelligence, Digital Curricula, Educational Crises, Elementary Schools, Nablus*

Introduction

Sustainable Caught between the hammer of occupation and the successive financial crises the Palestinian Authority has faced for years—accompanied by repeated strikes in its most critical sectors, health and education—and the region's three-year history of war and political instability, education in Palestine is facing its most perilous phase in decades, especially since this situation followed the COVID-19 pandemic, which exacerbated educational gaps and hindered the learning process, not to mention the near-total collapse of the educational system in the Gaza Strip following the recent war.

However, the rapid developments the world is witnessing in technology and digitalization have had the greatest impact on efforts to save the education sector under these circumstances by enhancing learning methods and improving the educational process.

This is what (Dawla,2026) pointed out in his article on distance learning in Palestine: from an emergency solution to a strategic decision. Given the instability the region is experiencing, it appears that distance learning is no longer a secondary option, but rather a strategic necessity in which investment is required. However, its success depends on the seriousness with which it is transformed from a temporary solution into a comprehensive educational system based on planning, governance, and quality.

Since education is considered a matter of national security, educational policy in Palestine is managed by the Ministry of Education, which is responsible for school education. The Ministry of Education leads national efforts for strategic educational planning, in collaboration with government agencies, civil society organizations, and official institutions. (Al-Saoud, 2024)

However, education in Palestine faces many challenges, as noted in the study “ . Among these challenges are the inconsistency of policies at the top of the educational hierarchy and the absence of a coherent, evolving educational philosophy with an institutional character, as many policies are tied to the person of the Minister of Education, which has prevented their relative stability and created a gap between educational reform efforts within the educational system and the educational field, which is burdened by numerous challenges, burdens, and obstacles. For its part, the Ministry of Education has highlighted a number of obstacles, the most significant of which are the occupation and its repercussions, the political division between the West Bank and the Gaza Strip, students’ poor performance on international tests, the rise in violence in schools, the adoption of a teacher- and curriculum-cantered educational model, and the inability to provide adequate school buildings. (Ministry of Education, 2021)

Within the Strategy for Education and Higher Education to Develop Education in Palestine 2025–2027, the report noted that risks related to mobility, movement, access, and enrolment due to attacks by the occupation and its settlers are among the most significant obstacles to student and teacher enrolment and access. (Ministry of Education and Higher Education, 2025)

Review of Related Literature

As for education in Gaza, it faces another set of complex challenges that require concerted efforts at all local and international levels, as “the Gaza Strip suffers from difficult economic and political conditions that have negatively impacted education, with the education system facing mounting challenges due to a lack of resources, restrictions on the movement of teachers and students, and severe overcrowding in schools. The recent war marked a dangerous turning point in the educational system, transforming the educational crisis into an existential disaster that threatens the right to education for an entire generation. (And estimates indicate that a large proportion of educational institutions in the Gaza Strip require either complete reconstruction or major repairs. (Jaber and Ali, 2024)

Radical and flexible solutions were therefore necessary to ensure the continuity and quality of the educational process. Drawing on the experiences of other countries and given the rapid pace of technological development, digitization, and artificial intelligence, it was imperative to harness these advancements to save the educational system.

In a study by (Al-Marahlha and Al-Zuraikat, 2022), it was noted that there is no doubt that educational technology has made education more accessible to a larger number of students worldwide. Consequently, numerous educational centers have been established that offer—with the aid of technological tools – online or hybrid (blended learning) teaching methods, thereby facilitating access to education. On the one hand, educational technology makes teaching easier by providing new media and channels that teachers can explore to communicate with students, and today, thanks to technology, teachers can assess students more easily and quickly, prepare lessons more efficiently, automatically grade exercises, and monitor each student individually or identify when a student is falling behind.

A study on inclusive education in Palestine in the digital age highlighted the key reasons why the need for digital education extends beyond technology's role in simply improving educational quality; it is also essential for ensuring the continuity of learning under difficult and complex circumstances. Education in Palestine, particularly in Gaza, has faced a severe crisis in recent years, leading to disruptions in schooling and forcing large numbers of children to abandon in-person learning for extended periods. Furthermore, a significant number of schools and educational institutions have been damaged or destroyed, making access to education a daily challenge rather than merely a matter of educational development. In the West Bank as well, education continues under significant economic and institutional pressures, amid financial crises that have affected the ability of educational institutions to operate effectively. Therefore, technology is no longer merely a tool for modernization; it has become an essential part of the educational response needed to support the right to education, reduce educational loss, and provide flexible alternatives that ensure the continuity of learning in fragile environments. (Qarabsah, 2026)

In a study by (Burhan al-Din and Shihadeh, 2025) addressing the digital transformation of education in the Palestinian context, this study was conducted to highlight significant structural and contextual constraints in Palestine, including limited resources, inadequate digital infrastructure, and social and political constraints. Furthermore, the analysis emphasizes the need for comprehensive teacher training and community engagement to mitigate resistance to digital change. By addressing these challenges through targeted interventions and collaborative frameworks, the study proposes practical solutions to foster a comprehensive and flexible digital education system, ultimately paving the way for long-term educational and social development in Palestine. However, the adoption of e-learning and digitization in education is not a magic solution that will overcome face-to-face education and its challenges. There are many challenges that have been and continue to be a fundamental obstacle to establishing a comprehensive educational system that can be relied upon in the educational process to achieve multiple goals, not just during crises.

Here, it is essential to define the concept of crises in education as: any obstacles or challenges within educational institutions or in their surrounding environment that cause a loss of education in aspects related to the quality and regularity of education within educational institutions, and prevent the educational process from continuing on its natural and familiar course (Abu Arar, 2022).

On this topic, Hamad (2021) noted, following a survey of Palestinian mothers regarding distance learning for children in grades 1–4 in the Ramallah area, and found that the

mothers reported “a lack of prior preparation, insufficient technology, ineffective and unengaging e-learning, and a lack of ministerial preparation for such a crisis.” This finding specifically suggests that ready-made digital curricula—pre-prepared and not reliant on teacher improvisation—could have filled a real gap. Shuaib and Adwan (2025) For their part noted that, following their study of the challenges of e-learning during the Israeli aggression, the study recommended adopting flexible educational policies, strengthening digital infrastructure, and intensifying vocational training and psychological support to ensure the continuity of education in emergency situations. Its significance lies in providing a research model that can be applied in educational settings affected by conflicts and disasters.

Teachers also identify other obstacles, including irregular student attendance, student assessment, and online learning. The study highlights the critical success factors for adopting e-learning, as this type of learning requires specific skills and competencies from both teachers and students. Teachers must also adopt diverse teaching methods that take into account individual differences, learning styles, and psychological support. These methods require advanced training before they can be implemented in Palestine. Additional recommendations were made, including promoting an e-learning culture, raising awareness of community partnerships, enriching teacher preparation programs, and conducting training courses for teachers. (Al-Da’is, Sabah, & Abu-Sabah, 2021)

As for the importance of knowledge of digitalization and artificial intelligence programs, which are central to the use of educational platforms, ((Abu Eita, Abbas Ali, and Al-Awadhi, 2025) through their research on the importance of digital literacy, that relevant authorities provide an appropriate environment for digital literacy among secondary school students by developing a strategic plan that begins with preparing students from pre-secondary levels and developing educational curricula that support this, and by preparing and training teaching and administrative staff in schools to begin the practical implementation of digital literacy.' Ghanem (2024) for her part noted in her study, which seeks to address the sustainable curriculum; applications of artificial intelligence in education; and the challenges facing their implementation in the field of education. It is imperative to begin implementing the principle of educational integration between science and technology in all educational curricula, and to apply modern trends in curriculum integration, such as the STEAM educational approach, when planning and designing curricula at all educational levels, It is also necessary to train teachers in colleges of education on curriculum integration, the incorporation of technology into curricula, and the use of digital curricula, as well as to provide in-service training for teachers on the use of artificial intelligence applications and digital transformation processes in teaching and learning.

In a study by (Nadasimia & Nadasimia, 2022) on proposed solutions to reduce barriers to digitization in education, the researchers proposed “a digital solution for elementary schools in conflict zones using the Moodlebox platform to enable these children to learn with the help of teachers and parents.” The methodological approach of our solution relies on the use of a Raspberry Pi 3 B+ device, on which we install the Moodle platform for all elementary school grades. This solution does not require an internet connection or network infrastructure to function, as each student is provided with a tablet that enables them to connect to the digital elementary school platform via Wi-Fi.

It can be said that “distance learning can be more effective and successful if there is rapid planning and implementation by the government, adequate training for teachers in information technology, provision of devices, and internet access, and additional support for low-income families. Therefore, school administrations and policymakers should consider implementing changes that will improve the current state of virtual learning” (Zouki, Musban, & Bezour, 2022).

The application of digital literacy skills in elementary schools is a systematic approach aimed at creating an independent, student-centered learning environment through the effective and efficient use of digital technology. In a study summarizing the views of elementary school teachers, the teachers emphasized the importance of implementing digital literacy skills due to their impact on the efficiency and effectiveness of school resource utilization, the improvement of educational quality, and their contribution to the development of 21st-century skills. The study concludes that school administrators must manage the curriculum and establish regulations governing the provision of the necessary infrastructure for the implementation of (Prasetyo, Aliyyah, and Widyasari, 2025)

Objectives

This study aims to examine the role of digital curricula in addressing educational challenges in elementary schools, and whether parents rely on them to mitigate learning loss among elementary school students. Given the exceptional circumstances facing education in Palestine, the study also aims to investigate whether the type of school (public, private, or UNRWA) influences the level of commitment to providing ready-made digital curricula for students.

Given the economic conditions faced by citizens in Palestine, the study aims to identify the impact of the absence or lack of access requirements for digital programs (such as a mobile device, computer, internet, and knowledge of how to access platforms) on the effectiveness of digital programs.

Research Questions

- What is the role of digital curricula in overcoming educational crises in elementary schools?
- What is the impact of parents’ adoption of ready-made digital curricula on reducing learning loss among elementary school students?
- Does the school’s governing body (public, private, or UNRWA) affect the availability of ready-made digital curricula?
- To what extent can the availability of access requirements for digital programs (such as a mobile device, computer, internet, and knowledge of how to access platforms) affect the effectiveness of digital programs?
- To what extent can ready-made digital curricula serve as a substitute for e-learning to overcome educational crises?
- Do private digital curricula (not affiliated with official bodies) help reduce educational loss?

Answering these questions will help determine the importance of ready-made digital curricula and their role in enhancing elementary schools’ response to educational crises, the readiness of digital platforms to deliver digital education to elementary students, and whether there is coordination between these platforms and the relevant authorities at the

Ministry of Education. Answering these questions will also help identify the impact of using ready-made educational platforms on students compared to e-learning users during crises, and whether there are specific requirements for the success of this educational system.

Methodology

Research Approach

To conduct the present study, the descriptive-analytical approach was used, as it is considered the most appropriate method for such a study.

Study Population

The study population consisted of all parents of students in grades 1 through 6 in public, private, and UNRWA schools. The total number of students was 44,222, distributed as follows: 26,541 students in public schools, 12,843 students in private schools, and 4,838 students in UNRWA schools, according to statistics from the Palestinian Ministry of Education.

Study Sample

A random sample was selected, targeting all parents of students in grades 1 through 6 in public, private, and UNRWA schools. A total of 384 valid questionnaires were collected, representing a response rate of 0.9% of the study population. The following table shows the distribution of the study sample by demographic variables.

Research Instrument

To achieve the study's objectives, the researcher developed a questionnaire based on theoretical literature and previous studies. The questionnaire consisted of two sections: the first section included general information such as (the student's guardian, housing, type of school, grade level, whether the student owns a personal e-learning device, and if so, the type of device; if the student does not own a personal device, whether they follow online lessons; whether internet access is available at home; and whether the school provides ready-made lessons via online platforms? Does the school provide ready-made digital curricula for students during crises? Does the school work to provide digital curricula continuously, regardless of crises?) The second section includes the survey items, which are 24 items, all of which focus on measuring the role of ready-made digital curricula in enhancing the response of elementary schools to educational crises in the Nablus Governorate.

Validity of the Raters

The study instruments were presented to six reviewers, and modifications, additions, and deletions were made based on the reviewers' comments. The validity of the instrument was also verified statistically by calculating Pearson's correlation coefficient for each item in the study with its total score.

1. The results showed that the Cronbach's alpha reliability coefficient for the total score of the scale was high, as the Cronbach's alpha value for the total score was 0.913, indicating that the scale has a high degree of reliability. This suggests that the scale is valid for application and for achieving the study's objectives.
2. The study data were analyzed after applying the instruments to the study sample, using the Statistical Package for the Social Sciences (SPSS), by extracting frequencies and percentages, arithmetic means, standard deviations, Cronbach's alpha, and Pearson's correlation coefficient.

Analysis

A review of previous studies—which, despite differing in their approach, agree on the importance of integrating education with technology and harnessing technological advancements to overcome educational challenges in general and educational dropout and discontinuation in particular—reveals that These studies emphasize the importance of e-learning in conflict zones in general and in Palestine in particular, as the lack of political, security, and economic stability in the Palestinian education system has driven teachers and government sector employees to engage in a series of consecutive strikes over salary payment issues, was a key factor driving officials at the Ministry of Education to seek an educational alternative during times of crisis.

However, researchers believe that treating crises as mere reactions will not ensure the continuity or quality of education. This means that distance learning must be sustainable and take various forms, such as ready-made digital curricula that serve as a reference for students at all times, helping them maintain continuity in their learning and ensuring its quality. Previous studies have highlighted the importance of integrating artificial intelligence into the educational process and its role in raising and improving academic achievement levels. Some of these studies have also shed light on the obstacles and challenges educational institutions face in navigating this new phase of educational development. These studies, along with the questions and inquiries they raised and the recommendations they produced, have had a significant impact on enriching knowledge and guiding researchers toward new insights in their field of study.

Through life experiences and practical and academic expertise, researchers have observed the importance of incorporating technological advancements into the educational process to ensure its continuity and the quality of education, However, given what has been addressed in previous studies on e-learning and its obstacles, it was necessary to find solutions that ensure these obstacles are overcome while maintaining the quality and effectiveness of education, especially since the study targets students from first through sixth grade, meaning that the educational process must provide a stimulating, enjoyable, and safe environment. This is where the importance of this research lies: in determining the extent of the need for ready-made digital curricula provided by schools and supervised by official authorities, so that these curricula cover the core subjects of the curriculum and are accompanied by activities that engage students, ensuring that these curricula are available at all times on dedicated platforms that do not require an internet connection, This takes into account the unique nature of the Palestinian education system, which is characterized by instability due to political, economic, and social factors, in a country where education is the top priority for citizens, families, and the government, as it is the sole gateway for citizens to the global community.

Findings and Discussion

Through the study conducted by researchers on the importance of providing ready-made digital curricula for elementary school students to support them in making up for lost learning, and to serve as an alternative or supplement to e-learning for authorities, particularly to overcome obstacles, the study's results indicated, with a high degree of agreement, the importance of providing devices to financially disadvantaged students and the importance of developing digital curricula to make them more interactive. The results also highlighted the importance of involving students' parents in training programs on how to use educational platforms. To ensure the accuracy of information and the security

of educational platforms, the study's findings indicated strong support for these platforms to be monitored by an official body that oversees the quality of the educational content provided.

These findings are based on students' previous experiences with learning platforms and ready-made digital curricula, which allowed students the freedom to choose their attendance times, and assistance with homework, not to mention the ability to focus on the material during a pre-recorded digital class compared to a live online class attended by more than twenty students. Digital curricula have helped ensure the continuity of education during crises. Furthermore, a number of teachers use ready-made digital curricula to explain lessons, which indicates that this approach is well-received by students, especially if it offers diverse educational activities that teachers cannot conduct in school due to a lack of resources or safety concerns—such as science experiments—as well as the use of illustrations and simulation videos, which help students better understand the lessons. This is especially true if these digital curricula take into account students' learning motivations—particularly in first and second grades—and account for individual learning differences. All of these factors will have an impact on increasing students' motivation to learn, compensating for educational gaps, and stimulating self-directed learning, not to mention developing students' technology skills and helping them keep pace with rapid advancements in this field.

In summary, after answering the main research question: **What is the role of ready-made digital curricula in enhancing the response of elementary schools to educational crises in the Nablus Governorate?**

Following a statistical analysis of the data and the calculation of means and standard deviations regarding the role of ready-made digital curricula in enhancing the response of elementary schools to educational crises in the Nablus Governorate, the data indicates that the role of ready-made digital curricula in enhancing the response of elementary schools to educational crises in the Nablus Governorate was high, as the arithmetic mean of the total score was (3.40) with a standard deviation of (0.66). Data analysis shows that the statement "Devices should be provided to financially disadvantaged students" ranked first with an arithmetic mean of 4.42 and a standard deviation of 0.88. The second-ranked item was "Digital curricula should be developed to be more interactive," with an arithmetic mean of 4.32 and a standard deviation of 0.70, and the third-ranked statement was "Parents should be trained to use educational platforms," with a mean of 4.17 and a standard deviation of 0.69.

Conclusion

Based on the findings of previous studies and the results of the current study, the researchers emphasize the importance of strengthening the role of ready-made digital curricula in schools, particularly at the elementary level (grades 1 through 6). The researchers recommend that the Ministry of Education and relevant authorities create an environment conducive to the official provision of ready-made digital learning platforms for all curricula, ensuring that these platforms are secure, vetted, and achieve the desired educational objectives for each subject. In addition, relevant authorities within the Ministry of Education should work to provide a unified digital educational platform that offers model lessons for elementary school students, supported by student-engaging teaching tools, and presents information in a simple, entertaining, and educational manner that ensures the accurate delivery of information. It covers the skills required for

elementary school students, such as proper pencil grip, correct pronunciation of letters and their articulation, and other skills required for this grade level. It is accompanied by assessment templates monitored by schoolteachers or another supervising body designated by the Ministry of Education. Given that students currently use private platforms as a reference, researchers believe it is important for relevant authorities to encourage private educational digital platforms to develop model lessons for students that support the official platform of the Ministry of Education, while monitoring these platforms and ensuring their quality and security.

The researchers believe that the digital education system cannot succeed without parental cooperation, which requires training parents on how to use these platforms and informing them of their importance, whether through meetings with parents at schools or by providing instructional videos sent to parents. This should be accompanied by collaboration between the Ministry of Education and an entity with expertise in providing offline educational platforms, as well as drawing on the experiences of other countries, such as the Central African Republic. Given the importance of scientific research in analyzing the problem and proposing appropriate solutions, the researchers believe that this research paper can serve as a foundation for more specialized and extensive research in Palestine or other countries.

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