

Fostering EFL Digital Educational Transformation: A Bright Spot of the Pandemic

تعزيز التحول الرقمي لتعلم اللغة الإنجليزية كلغة أجنبية: بقعة مشرقة للوباء

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Abstract

Palestine, like the rest of the globe, is dealing with the pandemic and is working hard to keep education ongoing in Palestinian academic institutions via digital learning. To assess this unusual experience, the study examines the barriers and needs that online learners are facing when learning English as a Foreign Language through various LMS tools during the COVID-19 pandemic. The study also compares learners' barriers and needs with regard to their gender and place of residence. In addition, it investigates the relationship between learners' attitudes, barriers, and needs of online learners. The sample consisted of 2,360 students from public schools. The researcher used a five-point Likert questionnaire for research questions and SPSS to analyze the collected data. Results indicated that the level of barriers in general were moderate and the level of needs was high. There were no statistically significant differences ($\alpha=.05$) found in the variables barriers to use LMSs and the needs of online learners due to gender or place of residence. The results also indicate that learning English language online had a positive impact on students' attitudes toward using LMSs that provided continuity of the learning process during the closure. The findings show a link between the necessity to integrate LMS systems within education and the challenges that online learning faces. Learners who had a high level of difficulty using LMSs had more needs to learn online than those who had a low level of difficulty. In addition, there was a positive relationship between barriers, needs and attitudes towards technology and online learning. It is suggested that the findings pique the interest of Palestinian authorities and experts, encouraging them to implement a fully interactive learning and reflection technique throughout all academic domains. The researcher suggested conducting scientific investigations to foster advances in LMS portals to enhance learning English as a foreign language and similar educational disciplines.

Keywords: Challenges; COVID-19; EFL; LMS; needs.

الملخص

تتعامل فلسطين، مثل بقية دول العالم، مع الوباء للحفاظ على استمرارية التعليم في المؤسسات الأكاديمية الفلسطينية من خلال التعلم الرقمي. لتقييم هذه التجربة الغير العادية ، تفحص الدراسة الحواجز والاحتياجات التي يواجهها المتعلمون عبر الإنترنت عند تعلم اللغة الإنجليزية كلفة أجنبية من خلال أدوات LMS المختلفة أثناء جائحة COVID-19. تقارن الدراسة أيضاً معيقات واحتياجات المتعلمين وعلاقتها بمتغيرات الجنس ومكان الإقامة. بالإضافة إلى ذلك ، فإن البحث يتناول العلاقة بين مواقف المتعلمين والمعيقات واحتياجاتهم لاستمرارية التعلم عبر الإنترنت. وتكونت العينة من 2360 طالبا وطالبة من المدارس الحكومية. لغايات جمع وتحليل البيانات، استخدم الباحث استبانة ليكرت المكونة من خمس نقاط لأسئلة البحث وSPSS. أشارت النتائج إلى أن مستوى المعوقات بشكل عام متوسط ومستوى الاحتياجات مرتفع. كما اظهرت النتائج بأنه لا يوجد فروق ذات دلالة إحصائية عند ($\alpha = .05$) في معوقات واحتياجات المتعلمين لاستخدام أدوات LMS يعزى لمتغيري الجنس أو مكان الإقامة. تشير النتائج أيضاً إلى أن تعلم اللغة الإنجليزية عبر الإنترنت كان له تأثير إيجابي على وجهات نظر الطلبة تجاه استخدام أنظمة إدارة التعلم التي وفرت استمرارية عملية التعلم أثناء الإغلاق. تظهر النتائج صلة بين ضرورة دمج أنظمة LMS في التعليم والتحديات التي يواجهها التعلم عبر الإنترنت. احتاج الطلبة ممن لديهم مستوى عالٍ من الصعوبة في استخدام أنظمة إدارة التعلم إلى التعلم عبر الإنترنت أكثر من أولئك الذين لديهم مستوى منخفض من الصعوبة. بالإضافة إلى ذلك، كانت هناك علاقة إيجابية بين المعوقات والاحتياجات ووجهات النظر تجاه التكنولوجيا والتعلم عبر الإنترنت. أن نتائج البحث تشير اهتمام السلطات الفلسطينية والخبراء، وتشجعهم على تنفيذ أسلوب التعلم والتأمل التفاعلي بصورة تكاملية في جميع المجالات الأكاديمية. يقترح الباحث إجراء دراسات علمية لتعزيز الاستفادة من أدوات LMS لتعزيز تعلم اللغة الإنجليزية كلفة أجنبية والتخصصات التعليمية المماثلة.

INTRODUCTION AND THEORETICAL FRAMEWORK

Overwhelmingly, the outbreak of the virus COVID-19 has had a significant adverse effect on the educational process (UNESCO, 2020). Since March 2020, educational institutions in the world in general and in Palestine in particular, have been experiencing a long shift from traditional face-to-face education to online education (Affounneh et al., 2021; Bao, 2020; Hamad, 2021; Zhang et al., 2020). Globally, governments have authorized school and university closures as an outcome of the global spread of COVID-19 (UNESCO, 2020). This widespread phenomenon has necessitated lockdowns in different aspects of life, such as educational institutions (UNESCO, 2020). Therefore, the educational process has undergone a significant transformation in handling the academic process. It has been considered a crucial conundrum for educational systems (Daniel, 2020; Mishra, et al., 2020). According to UNESCO, the shutdown of academic organizations has impacted millions of students in thousands of educational institutions worldwide. The closure of schools and universities has severely affected more than 1.5 billion students in nearly 165 countries of the world (Peters et al., 2020). As a result, schools and universities have shifted to virtual education (Osman, 2020). Various websites or Learning Management Systems (LMSs) such as Microsoft Teams, Zoom, Google Classrooms, and Google Meet have been utilized by academic institutions and public-sector schools to run learning from home (Mishra et al., 2020).

According to Zhu & Liu (2020), the virus outbreak had the power to obstruct academic performance. Traditionally, the educational sector has been conventional and impervious to modification. Pupils can now access Google's immense information with the scroll of a simple touch. The latest assessment by the European Commission agrees with this assessment of the virus outbreak impact and the potential for progress if virtual paradigms and facilities are used effectively (European Commission, 2020).

The COVID-19 crisis has hastened the widespread adoption of virtual education activities (Patricia, 2020). The range of solutions put in place to ensure continuity of education and training was wide, including low- and

high-tech practices, with marked differences within and between countries. Higher levels of digital capacity and experience with alternative and flexible forms of learning led to faster and better responses (Dhawan, 2020).

1.1. Inclusion of Technology in Education

Online platforms and educational progress have significantly increased the diversity of distance education settings (Rice et al., 2020). Distance learning is a means of instructing students from a distance away from a campus, and it is based on self-directed learning with some mentoring (Natarajan, 2005). According to Watts (2016), the term "distance learning" comprises a set of pedagogical techniques such as experiential DVD-ROMs, video presentations, and audio recordings with lectures delivered via mail. The potential to acquire knowledge from anywhere is one of the most important benefits of digital and distance learning (Dobbs et al., 2017). Online and distance education systems can save time because educators and teachers do not need to be physically present at the same time. Nowadays, digital applications assist simultaneous digital and distance education (Marinoni et al., 2020). Teaching staff can upload video lectures and presentations to Google Classroom for students who cannot attend traditional classrooms due to time constraints, distance, or pandemic such as COVID-19 (Lassoued et al., 2020). Digital learning has grown in popularity and recognition because of the benefits to academic institutions. It makes a vital contribution to pursuing learners' professional expertise. It also directly addresses the critical problem of overcrowded schools. Another remarkable benefit of digital learning is empowering learners to communicate effectively at their own pace and cognitive abilities. Moreover, it increases graduation and recruitment (Aristovnik et al., 2020; Sahu, 2020).

The rapid advancement of virtual technology is transforming the world, causing a complete shift in the way people communicate, collaborate, and conduct research (Skulmowski & Rey, 2020). The emerging digitalization has an immediate effect on several aspects of people's lives, ranging from the implementation of technology in all domains of economic activities to the social and cultural consequences of burgeoning advanced

technologies such as Artificial Intelligence. As in other fields, education and skills development are undergoing rapid transformation. When effectively plotted and adapted, digitalization application for education-learning provides many benefits, including the ability to reach a more multifaceted group of learners, boost versatility, accessibility, involvement, and maintain more interactive educational styles of integration and collaboration (Diaz & Walsh, 2020). Virtual learning is a cutting-edge web-based platform that relies on virtual technological advancements and other structures of instructional components. Its primary goal is to provide students with a customized, student-centered, informative, and engaging learning environment that fosters and improves information processing (Mendez & Nagles, 2021; Rodrigues et al., 2019). Despite these benefits, several obstacles required skillful efforts to avoid, particularly those associated with psychological and technical difficulties. (Lassoued et al., 2020).

The most frequently mentioned barriers in literature can be summarized under eight headings: administrative issues; social interaction; academic skills; technical skills; learner motivation; time and support for studies; cost and access to the Internet; and technical problems (Adnan & Anwar, 2020; Chirikov et al., 2020; Händel et al., 2020; Marinoni et al., 2020). In addition, the technical platform required to participate in a digital conversation can be expensive (Aucejo et al., 2020). Other digital and distance learning challenges include application complexity and technical issues, management, and teaching methods (Whitelock et al., 2020). Teachers and students lacked the expertise to deal with this transitional period, the sudden shift to the virtual learning paradigm due to the virus outbreak harmed academic institutions and learners (Bojovic et al., 2020; Peters et al., 2020). Students faced difficulties such as mental stress and knowledge acquisition methods. (Patricia, 2020). Students and academic staff did not attain practical training in practicing learning and teaching via digital platforms (Bao, 2020; Carroll & Conboy, 2020).

Many research investigations focused on the bright side of virtual learning, but very few dealt with the barriers that educators and learners had to undergo using digital tools. Patricia (2020) asserted that learners

preferred traditional modes of instruction and direct contact with instructors. Furthermore, Bojovic et al., (2020) found that many instructors lacked the required technical knowledge to handle virtual learning situations and could not conduct assessments virtually. Although distance learning may be a viable alternative to traditional methods, particularly during the pandemic closure period, there are some limitations and requirements to be aware of when employing virtual and distance learning strategies to thrive during this unusual period (Batez, 2021). Azimi (2014) performed an investigation that revealed striking facts about e-learning modules, Internet platforms, and multimedia broadcasting. They were ranked high in terms of knowledge acquisition requirements, while the development of teaching methods and portable technology was considered the lowest. In Azimi's study, the T-test did not reveal a statistically significant relationship between gender and the need to learn via e-learning modules. (Azimi, 2014).

Studies that compared online learning to traditional learning processes revealed that educators possessed the ability to attain knowledge and experience more quickly (Bojovic et al., 2020). However, the study of Basilaia & Kvavadze (2020) indicated that students who participated in virtual classes via Google Meet confirmed the swift transition to the digital modes of education. Online classes were carried out successfully and learners were empowered with expertise that they could apply in the future.

1.2. The Dynamics of English Instruction and Technology Integration in Palestine

The ultimate purpose of teaching English in Palestine is to empower teenagers to cultivate basic competency in the intended language skills. This intended target can fully help students comprehend and generate engaging English to communicate orally and in written communication. Language mastery assists in grasping a completely different culture and staying consistent with some of the newest findings, scholarly, and technological discoveries (Affounneh et al., 2021). However, this goal has not been achieved. Professional and academic reality revealed educational experts' dissatisfaction with students' learning quality, English language

competency, and reluctance to interact competently in real-world contexts. The studies conducted in the Palestinian context to identify issues with teaching textbooks and the academic achievements of EFL students revealed unsatisfactory results (Bakeer, 2018; Zalloum, 2021). Researchers associated the difficulties that English teachers faced with numerous considerations, including outmoded curricula, a dearth of modern classroom practices, and a lack of qualified educators in TEFL to incorporate alternative education technology (Khaled & Hussam, 2020; Rixon, 2013; Subaih et al., 2021). Furthermore, traditional EFL educational strategies failed to maintain students' preferences or sustain reliable and feasible information processing progress. (Bakeer, 2018; Fauzi et al., 2020).

One of the initiatives proposed to optimize Palestinian students' linguistic core competencies and cultivate 21st-century skills and continuous learning was integrating technology into academic achievement (Bakeer & Bruce, 2019; Fauzi et al., 2020). In Palestine, strict social distancing policies and school closures forced educational institutions to shift to e-learning and interactive learning teaching models (Zalloum, 2021; Zhang et al., 2020). Instructors in Palestine, including those in other countries, had to face these challenges connected with the teaching and evaluation process, which obligated them to use various Learning Management Systems (LMSs) that they were unfamiliar with these tools (Bojovic et al. 2020; Zalloum, 2021). This issue has created several difficulties for teachers and learners (UNESCO, 2020). Lack of opportunities to help teachers make better use of technology in distance learning or acquire active learning strategies to demonstrate the ability to work with others more proficiently, creatively, and effectively (Peters et al., 2020; Subaih et al., 2021). In addition, educators lack the expertise to cope with the sudden changes in teaching methods brought about by COVID-19 (Jæger & Blaabæk, 2020). Similarly, well-prepared and adaptable school courses are flawed, and they are not accessible online to ensure learning effectiveness.

Previous studies have emphasized the importance of proposing practical educational alternatives to meet the challenges of English teaching

during the tragic stage of the virus outbreak. When maneuvering for the change, academic experts must consider the crucial practical considerations such as technology integration in the educational process, students' needs and perceptions, and open and flexible educational programs. The learning environment in the Palestinian classrooms reinforces these concerns. The researcher who is specialized in teaching language skills holds discussions with teachers who have assured the use of a unique LMS tools to improve students' academic performance during the pandemic. In the Palestinian context, no studies have been conducted on the use of digital educational platforms for conducting language learning. Therefore, the current study is novice that aims to investigate the impact of LMS tools as social learning networks on the achievement of Palestinian learners' in language skill. It also attempts to show the effect of using LMSs on learners' altitudes towards the learning of the English language. As a result of this situation, the researcher decides to conduct this study to help highlight learners' challenges, needs, and perceptions regarding the use of LMSs and propose effective means to carry out learning process smoothly with durable impact. The researcher embarks on this study to emphasize the difficulties and demands students face when learning EFL via various LMS websites. Highlighting pupils' challenges and demands in connection with gender and area of residence is added to the targets of the researcher. In addition, his focal intention is to investigate the link between pupils' perceptions of advanced technologies, challenges, and demands of virtual education

2. METHODOLOGY

2.1. STUDY QUESTIONS

The proposed research incorporates five study questions that encompass the investigation:

- (1) From the perspective of Palestinian public school students, what are the most common challenges in using LMS?
- (2) How do students in Palestinian public schools determine their needs for incorporating various LMSs into their academic performance?

- (3) What are learners' perceptions toward digital learning in public schools during the COVID-19 virus outbreak?
- (4) Are there considerable gender variations in Palestinian governmental learners' perceptions of challenges, demands, and perceptions?
- (5) Are there considerable variations in pupils' perceptions of the factors' barriers, demands, and perceptions due to the living location variables?
- (6) Is there a considerable connection between digital pupils' perceptions of technology, challenges, and needs?

2.2 Research Instrument

The researcher employs quantitative methods for collecting data in this post-mortem study. A quantitative approach is adopted to collect the data about learners' perspectives of challenges, demands, and perceptions toward various LMSs during the COVID-19 virus outbreak in Palestine (Ary et al., 2018, p. 372). Scheduling, selecting the population, choosing the sample size, developing the tool, administering the questionnaire, and finally interpreting information are all processes in research study that the researcher completes (Ary et al., 2018, p. 378). The collected information is analyzed applying one-way ANOVA (Ary et al., 2018, p. 178). The researcher creates a five-point Likert scale questionnaire before distributing it to the intended group of respondents. The first section of the questionnaire collects personal information from respondents, who are asked to fill out their gender and area of residence. The second part of the questionnaire addresses the study goal involving learners' perspectives of challenges, demands, and perceptions toward various LMSs during the COVID-19 virus outbreak in Palestine.

2.3. Research Questionnaire Reliability

The researcher proposes three variables from the items used to determine pupils' attitudinal parts. The researcher uses the Alpha reliability coefficient to compute the items in the research questionnaire. The goal is to see how closely each attitudinal variable relates to one another. Table (1)

displays the results of the internal consistency of these items classified as variables:

Table 1. Reliability Statistics

Variable	N of Items	Cronbach's Alpha
Barriers	47	0.972
Needs	10	0.896
Attitudes towards e-Learning	11	0.891

Table (1) shows the results of the items used to assess pupils' perceptions toward learning EFL digitally during the COVID -19 pandemic shutdown. The projects that is used to determine these attitudes are very trustworthy. The Cronbach Alpha coefficient ranges from 0.972 to 0.89. This result is greater than the recommended reliability value of 0.7. The output implies that the questionnaire is adequate for achieving the investigation's targets.

3. DATA ANALYSIS

According to quantitative data, 2360 school students have answered and completed the questionnaires distributed. The investigator uses (SPSS) to quantify respondents to furnish answers to the study's questions. Handling descriptive data analysis, the researcher uses the independent sample means, frequency, standard deviation, T-test, and one-way analysis of variance. The investigator uses the following scale to demonstrate the level of quantification of pupils' respondents to calculate the results.

Table (2): The scale used to represent the estimation level of pupils' responses

Score	Students' responses level
1-233	Low
2.34-3.67	Medium
3.68-5.00	High

The respondents for this study are 846 males and 1514 females from public school learners (N=2360) in Palestine. The researcher employs a

random sampling technique. The researcher distributes 2360 questionnaires and collects all of the respondents from the pupils. Table No. 3 illustrates the sample distribution of males and females.

Table 3. Sample distribution based on gender variable

Variable	Level	Frequency
Gender	Male	846
	Female	1514
Total		2360

The participants who comprised the sample for this study research are also divided into three groups based on their residential area (city, village, camps). Table No. 4 demonstrates the classification of the respondents' residential areas.

Table 4. Sample distribution based on place of the living variable

Variable	Level	Frequency
Residential area	City	1452
	Village	876
	Camps	32
Total		2360

The figures in table No. 4 reveal that 1452 students live in cities, 876 in villages, and 32 in camps.

4. RESULTS

The researcher carries out the statistical analysis taking into account the research questions, and arrives at the following findings:

1. Related outcomes to the first question: From the perspective of Palestinian public school students, what are the most common challenges in using LMS?

Handling this question, the researcher calculates the means (M) and standard deviations (St. D) as illustrated in table no.5.

Table (5): Means and Standard Deviations of EFL pupils' perceptions towards the most recurrent challenges facing the application of LMSs during the COVID-19 virus outbreak

The recurrent challenges facing the application of LMSs during the COVID-19 pandemic		M	SD	Level of Students' Responses
1	Operational concerns	3.72	0.91	High
2	Communication with Others	3.64	0.84	Medium
3	Educational abilities	3.56	1.08	Medium
4	Technological abilities	3.11	0.95	Medium
5	Inspiration of Learners	3.68	0.75	High
6	Time and resources for studies	3.63	0.85	Medium
7	The cost and accessibility of using the Internet	3.80	0.82	High
8	Troubles with technology	3.74	0.76	High
Total		3.61	0.70	Medium

Table 5 shows that the total degree of students' responses to the barriers facing the use of LMSs during the COVID-19 crisis was (3.61) which signifies that when using LMS in education, students in public schools experience many problems. Results also revealed that the variable that receives the highest mean for the most frequently encountered challenge is (3.80) "The cost and accessibility of using the Internet" is considered a high level of response. This result is due to the difficult financial conditions Palestinian learners are facing during the shutdown and the outbreak of the COVID 19 deadly virus. The variable "troubles with technology" gets a high degree. The variable mean is the following degree: (3.74). The variable "Operational concerns" receives the third-highest mean (3.72). Surprisingly, the variable "Technological abilities" has the lowest average of (3.11), implying that pupils, as digital natives, do not lack technical skills. As a result, they are not afraid of using advanced technologies.

2. Related outcomes to the second question: How do students in Palestinian public schools determine their needs for incorporating various LMSs into their academic performance?

The researcher computes the means and standard deviations to respond to the query. Table No.6 demonstrates the results.

Table (6): Means and Standard Deviations of EFL pupils' on how they determine their needs for incorporating various LMSs into their academic performances.

Needs for incorporating various LMSs into their academic performances		Mean	Standard Deviation	Level of Students' Responses
1	Sufficient school facilities for online learning	3.67	1.13	Medium
2	Self-study handbook for online learners	4.01	0.88	High
3	Workshops for online learners	4.09	0.79	High
4	Simplifying the process of online learning	4.02	0.83	High
5	Improvement of the system's attractiveness	4.10	0.78	High
6	High-speed connectivity	4.14	0.86	High
7	Flexible schedule	4.35	0.65	High
8	Ethics of online learning	4.38	0.76	High
9	Adequate communication with parents to coordinate curriculum-aligned learning	4.17	0.72	High
10	Students' need technical skills using different LMS	4.04	0.92	High
Total		4.10	0.60	High

Table 6 shows that the estimate of students' needs to incorporate the various LMSs in academic achievement during the COVID pandemic is high, with the total means (4.10) and the standard deviation is high (0.60). The figures also show that the need for 'Ethics of digital learning,' item 8, receives the highest mean score (4.38), followed by the need for 'Flexible schedule,' item 7, which scores (4.35). This result is followed by a need for 'High-speed connectivity,' with a mean of (4.14). The item with the lowest mean score is the need for 'Adequate school facilities for digital learning' with a mean of (3.67). The results indicate that the project receives a moderate evaluation during the school closure period because teachers and students use their electronic products and home Internet access. Other items are more important to students than school facilities.

3. The results related to the third question: What are pupils' perceptions toward digital learning in Palestinian public schools during the COVID-19 Disease outbreak?

The researcher computes the means and standard deviations to respond to the query. Table No.7 demonstrates the results.

Table (7): Means and Standard Deviations of EFL learners' perceptions toward digital learning in public schools during the COVID-19 virus outbreak.

Pupils' perceptions toward digital learning in public schools during the COVID-19 Disease outbreak		Mean	Standard Deviation	Level of Students' Responses
1	I'd like to learn English using various digital resources.	4.02	1.13	High
2	I believe that learning English online will assist me in improving my language skills.	4.04	0.88	High
3	Employing digital content delivered by the teacher improves the efficiency with which students learn English.	3.73	0.79	High
4	I was good at communicating with my peers to complete tasks using the available digital tools.	3.53	0.83	Medium
5	I like digital learning because it gives me feedback immediately.	3.56	0.78	Medium
6	Digital learning creates an enjoyable learning environment for English.	3.89	0.86	High
7	I'd rather have some English online courses and some face-to-face lessons in the school environment	4.13	0.65	High
8	When face-to-face courses are not available, I find digital English learning is effective.	3.56	0.67	Medium
9	Digital learning enables me to share information, opinions, and insights via social networking sites like Facebook, WhatsApp, and Messenger.	3.45	1.19	Medium
10	Unless accompanied by face-to-face lectures, digital learning is ineffective as a learning method.	3.78	1.20	High
11	When it comes to learning the English language, I prefer digital learning and believe it is superior to traditional methods.	3.61	1.19	Medium
Total		3.75	0.75	High

Table 7 shows that during the COVID-19 disease outbreak, the total mean for students' perceptions of digital learning in public schools is high, equaling (3.75), and the standard deviation was (0.75). The item that gets the highest mean (4.13) is "I'd rather have some English online courses and some face-to-face lessons in the school environment", and the standard deviation is (0.65). The following item is "I believe that learning English online will assist me in improving my language skills." with the mean (4.04) and the standard deviation (0.88). The item received the next highest mean (4.02) related to the item "I'd like to learn English using various

digital resources". The item's standard deviation is (0.86). The mean for the item "Digital learning creates an enjoyable learning environment for English" is (3.89). The item's standard deviation is (0.86).

4. Related outcomes to the fourth question: Are there considerable gender variations in Palestinian public school students' perceptions of challenges, demands, and perceptions?

The researcher computes the means and standard deviations to respond to the query. Table No.8 demonstrates the results.

Table (8). T-test for Independent Samples of gender variations in Palestinian governmental public school students' perceptions of challenges, demands, and perceptions.

Domain	Gender	N	Means	St. D	t-value	Sig*
Challenges	Male	423	3.59	0.85	0.659	0.510
	Female	757	3.62	0.60		
Demands	Male	423	3.95	0.67	6.392	0.000
	Female	757	4.18	0.54		
Perceptions	Male	423	4.03	0.79	9.765	0.000
	Female	757	3.60	0.69		

**The mean difference is significant at the 0.05 level.*

As illustrated in table No.8, there is no statistically significant evidence at $\alpha \leq 0.05$ in pupils' perceptions of the challenges facing the applications of LMSs during the COVID-19 virus outbreak correlate to gender. The value for this variable is (0.510) which is more than 0.05. This figure suggests that male and female students face challenges when using LMSs during the COVID-19 virus outbreak. The table results also show a significant difference in students' perceptions of the need to integrate different LMSs in education due to gender, with a considerable value of (0.000) for females. Furthermore, male students' perceptions of digital learning are different during the COVID 19 pandemic.

5. Related outcomes to the fifth question: Are there considerable variations in pupils' perceptions of the factors' barriers, demands, and perceptions due to the living location variables?

Dealing with this question, the researcher calculated the means (M) and standard deviations (St. D) as illustrated in table no. 9.

Table (9). One-Way ANOVA for pupils' perceptions of the factors' barriers, demands, and perceptions as a result of the living location variables

Domain		Sum of Squares	df	Mean Square	F	Sig.
Challenges	Between Groups	33.210	2	16.605	35.585	.000
	Within Groups	549.217	1177	.467		
	Total	582.427	1179			
Demands	Between Groups	.059	2	.030	.081	.922
	Within Groups	428.241	1177	.364		
	Total	428.300	1179			
Perceptions	Between Groups	14.760	2	7.380	13.138	.000
	Within Groups	661.154	1177	.562		
	Total	675.915	1179			

**The mean difference is significant at the 0.05 level.*

Table (9) demonstrates no statistically significant evidence $\alpha \leq 0.05$ in the variable of students' demands to incorporate different LMSs due to living locations. The findings also show a statistically significant difference in the variable challenges facing students to use various LMS in education during the COVID-19 pandemic and the variable of students' attitudes toward online EFL learning' due to living locations, with a significant level of less than 0.05.

The researcher performs the LSD analysis to clarify the outcomes listed in table no.9, and he presents the findings in table no. 10.

Table 10 shows the LSD of innumerable correlations between the three variables related to the place of residence.

Dependent Variable	(I) place	(J) place	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Challenges	City	Village	.32693 [*]	.04133	.000	.2458	.4080
		Camp	.62712 [*]	.17265	.000	.2884	.9659
	camp	City	-.32693- [*]	.04133	.000	-.4080-	-.2458-
		Village	.30019	.17387	.085	-.0409-	.6413
	Camp	City	-.62712- [*]	.17265	.000	-.9659-	-.2884-
		Village	-.30019-	.17387	.085	-.6413-	.0409

Perceptions	City	Village	-.09091*	.04535	.045	-.1799-	-.0019-
		Camp	-.92424*	.18942	.000	-1.2959-	-.5526-
	Camp	City	.09091*	.04535	.045	.0019	.1799
		Village	-.83333*	.19076	.000	-1.2076-	-.4591-
	Camp	City	.92424*	.18942	.000	.5526	1.2959
		Village	.83333*	.19076	.000	.4591	1.2076

* The mean difference is significant at the 0.05 level.

Table (9) demonstrates statistically significant evidence at ($\alpha \leq 0.05$) in the variable between the three places of residence in favor of the city. There is also a considerable difference in variable perceptions between the three places of living ($\alpha \leq 0.05$) difference favoring the camp.

6. Related outcomes to the sixth question: Is there a considerable connection between digital pupils' perceptions of technology, challenges, and needs?

Handling this question, the researcher used Pearson's correlation coefficient to calculate the R-value to measure the statistical relationship between challenges and demands of the domains toward using LMSs during the COVID-19 pandemic. Table (11) illustrates this.

Table (11). Pearson's Correlation Coefficient of pupils' challenges and demands to incorporate LMSs in education during COVID-19.

Variables		(r) value	Sig*
Barriers	Needs	0.565	0.000

*The mean difference is significant at the 0.05 level.

According to table 11, Pearson's Correlation Coefficient is (0.565), and the significant level is (0.000). During the COVID-19 pandemic, this result suggests an intermediate link between the two variables, the challenges, and the demand to incorporate the various LMSs in education. Table no. 11 highlights the domain's challenges of using LMSs and the demand to integrate the various LMSs in education.

Table (12). Pearson's Correlation Coefficient between the Variables challenges to Use LMSs, and the pupils' perceptions during the COVID-19 Pandemic

Variables		(r) value	Sig*
Challenges	Perceptions	0.348	0.000

*The mean difference is significant at the 0.05 level.

According to the table (12), Pearson's Correlation Coefficient is (0.348), and the significant level is (0.000). This finding posits a link between the two variables, the challenges of using various LMSs during the COVID-19 pandemic, and pupils' perceptions of digital learning.

During the COVID-19 pandemic, the variables are the need for various LMSs incorporated into education and pupils' perceptions of digital learning. Table 13 displays the results.

Table (13). Pearson's Correlation Coefficient between the variables' challenges to using LMSs and pupils' perceptions toward digital learning during the COVID-19 pandemic

Variables		(r) value	Sig*
Demands	Perceptions	0.128	0.000

*The mean difference is significant at the 0.05 level.

According to table no.13, Pearson's Correlation Coefficient is (0.128), and the significant level is (0.000). The finding indicates a meaningful relationship between the two variables, the challenges students face in using various LMSs in the educational field, and students' perceptions of digital learning during the COVID-19 virus outbreak.

5. Discussion

The researcher uses a two-section questionnaire to investigate students' challenges, demands, and viewpoints toward the use of various LMS tools during the COVID-19 outbreak in Palestine. The research offers recommendations for resolving the most pressing difficulties that learners face when undertaking digital transformation. Understanding these demands, attitudes, and obstacles is critical in assisting academic institutions

and decision-makers in developing and implementing innovative solutions to the constraints that obstruct students' educational advancement.

The study demonstrates many challenges that students are facing at the top comes the cost and accessibility of using the Internet. Funds to finance digital resources is a difficulty that learners face because getting devices for distance class sessions, as well as the costs of conducting lectures via the internet, can put schools under financial strain (Patricia, 2020). This is consistent with prior research, which indicated that students who utilize learning platforms, those who do not use learning websites, and those who have previously used distance learning all consider funding as a barrier to digital learning (Patricia, 2020; Aucejo et al., 2020). The majority of students in Palestine don't have computers, and don't have access to the internet (Patricia, 2020; Bakeer, 2018; Fauzi et al., 2020). The obligation to acquire devices for virtual classes also affects the expense of online classes (Bakeer, 2018; Fauzi et al., 2020). This challenge is due to the difficult economic situation that the Palestinian people are undergoing which is attributed to the Israeli occupation and control the access of the Internet in the area. This challenge is manifested in the studies of Adnan & Anwar, 2020, Chirikov et al., 2020, Händel et al., 2020, and Marinoni et al., 2020. Concerning technical abilities, the study shows that learners do not lack technical skills this may be related to the fact that technical skills are becoming a prerequisite in each domain of life and learners are addicted to technology in this digitalized world. The finding is reflected in the studies of Skulmowski & Rey, 2020, and Basilaia & Kvavadze, 2020.

The study reveals a high demand to incorporate the various LMSs in academic achievement during the COVID pandemic. The need for ethics of digital learning gets a high score. Other demands of students are connected with high speed connectivity and adequate school facilities for digital learning. These needs are really justified and needed considerations from stakeholders and academic institutions. The Ministry of Education needs to reconsider the technical infrastructure of schools and conduct seminars connected with the application of LMS tools in running learning situations and the rational for applying them. The findings of the study is reflected in

the studies of Whitelock et al., 2020, Bao, 2020, Mendez & Nagles, 2021, Rodrigues et al., 2019, and Carroll & Conboy, 2020.

The findings also illustrate students' positive perceptions toward the implementation of LMS platforms. As they went through the learning process, learners felt relaxed and comfortable. They believe that learning English online assist them in improving language skills. The practical implications of educational platforms reflected learners' enthusiasm to use them through enhancing their speaking and listening abilities. Students were previously shy and insecure when using English in conventional classroom settings. They were inspired to express themselves freely LMS tools since they are not embarrassed or hindered by structural errors. The finding here echoes the studies of Patricia, 2020, Dobbs et al., 2017, and Affounneh et al., 2021.

Finally, the results show that learners' opinions of the obstacles faced by LMS applications during the COVID-19 virus outbreak do not link to gender at a statistically significant level of 0.05. This shows that using LMSs during the COVID-19 virus outbreak presents obstacles for both male and female students. The findings also reveal a substantial gender difference in students' perceptions of the need to integrate various LMSs in education, with a significant value of (0.000) for females. Furthermore, during the COVID 19 epidemic, male and female students have diverse perspectives on digital learning. The study of Azimi, 2014 reflects the same outcomes.

6. CONCLUSIONS

Due to strict social distancing measures and school closures, educational institutions are in a crucial situation that force them to shift teaching to e-learning and blended learning models to reach students remotely. There is little prior preparation for this shift that puts the Ministry's educational offerings to the test. Although several researchers recommended the use of technology in the academic field, Palestinian public school students still face challenges, such as obstacles in using LMS to learn English. Students believe that it is necessary to incorporate various LMSs into education (Ali, 2020). On the other hand, foreign language

students are more willing to communicate with them remotely online than in self-study courses.

There are critical issues that face the educational system in Palestine as the importance of context, the need to integrate policy, pedagogy, and methodology in terms of the underlying social obligations, and the political and economic realities of a changing Palestine. Consequently, learning must occur in a context of impending crisis, uncertainty, and reaction to the corrosive impact of austerity and growing inequalities in the massive socioeconomic system (Bruce 2019). The unchanging educational system cannot produce the innovative thinking changes needed now. Digital learning can thrive when it is accompanied by trust, open communication, and adaptable innovation. Training is a process for responding to and managing change. Educational competence does not exist in a bubble. Vision and collaboration are the foundation of high-quality digital learning, focusing on personal needs and meeting real-world learning requirements.

The key parts that lead to the efficiency of educational digital transformation are communications technology, educational systems, and the learner. Equipment, the internet access, Internet connectivity, and Internet packages ought to be accessible to support the effectiveness of digital transformation process. Online access to education is impractical without technological means. Furthermore, Academic institutions need to ensure required practical and psychological assistance to learners. They have to run technical training workshops and seminars to their instructors to equip them with tools and expertise to incorporate and construct impeccable electronic material, and handle learning situations perfectly. Learners must be fully informed of the value and rationale of online academic achievement through school-sponsored special consultation sessions. For the purpose of digital lessons, learners ought to be offered with complimentary Net packages. A diligent learner is an essential component of digital learning's effectiveness.

Because digital learning will continue to be a key concern for all educational establishments in the coming years, the Ministry of Education should upgrade Palestinian academic institutions' technological capabilities

and equip them with high digital platforms and software learning programs. Individuals, academic institutions, and authorities are all responsible for the technical infrastructural crisis. As a result, the Ministry of Education should draw up a plan in collaboration with all educational institutions to monitor and review digital educational facilities and materials on a regular basis, particularly in domains that necessitate constant upgrading of knowledge with special focus on science and innovations.

7. RECOMMENDATIONS

Based on the research results, the researcher makes the several recommendations to the Palestinian Ministry of Education to implement in the coming years so as to deal with any future crisis. The Ministry of Education should provide academic institutions and pupils' with the learning management systems (LMSs) required for effectively integrating. Moreover, the Ministry ought to improve teaching staff and pupils' technical abilities to employ various LMSs efficaciously. Also, it is required to maintain open lines of correspondence with parents to facilitate effective curriculum-aligned knowledge acquisition. In addition, academic stuff ought to maintain open lines of correspondence with parents to facilitate effective curriculum-aligned knowledge acquisition. Educational specialists ought to define the principles of digital distance education programs. One striking suggestion is associated with using practical educational paradigms and interesting virtual resources to make learning more attractive. Finally, school administration ought to plan a flexible schedule and study deeply the appropriate time to conduct digital learning situations taking into account the psychological and health considerations into account.

ACKNOWLEDGMENT

I thank the department staff for assisting in this investigation by providing suggestions and valuable feedback.

CONFLICT of INTEREST

The researcher declares no conflict of interest.

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