

The Effectiveness of Using Distance Education during the Covid-19 Pandemic from Public Schools Students' Perspectives in Jordan

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Abstract

The current study set out to gain a better understanding of how public-school students felt about the efficacy of remote learning during the COVID-19 pandemic, and how those feelings varied according to gender. Using a descriptive survey approach, the study was implemented during the first half of 2020. In the Wadi el-seer Directorate of Education, all students enrolled in public schools made up the study population. The study sample included (334) students, (178) of whom were male and (156) of whom were female, selected using a simple random method. Here are the outcomes of the study: With an arithmetic average of 4.78, item (1) "Distance education works to enrich my education" rated top out of the items with a range of 3.60 to 4.78. "Distance education helped eliminate many student problems" (item 19) had the lowest mathematical average at (3.60) and was so rated last. In view of the recent Corona pandemic, the first question's analytical results showed that the schools in the Wadi el-Seer Directorate of instruction benefited greatly from remote instruction. Taken together, the sample's average perception was (4.30) and the field's standard deviation was (.558). The opinions of the sample participants about the overall tool averages do not alter according on the gender variable (males, females). National programs that advance the concept of distant education and strengthen collaboration between it with the Jordanian Ministry of Education should be supported, according to the experts..

Keywords: *Distance Education, Students' Perspectives, Covid-19 Pandemic, Educational Process, Technology.*

Introduction

In recent years, there have been numerous and quick advancements in technology, as well as in the accessibility of information and acceptance of diverse cultures. As a result, individuals in control of educational institutions must be able to adapt to and stay up with the rapid pace of global change. This is especially true in view of recent global trends and educational development policies that have taken many forms, such as online and distance education (Affouneh et al. 2020).

Yulia (2020) notes that the global pandemic has had a profound impact on education, forcing institutions of higher learning to quickly adopt distance learning as a means to keep students' instruction consistent and to communicate remotely through laptops, tablets, and smartphones. It is for this reason that many countries, Jordan included, have embraced the idea of distant education to keep students' scientific futures bright. Plans have been put in place to mitigate the impact of the Corona crisis while simultaneously ensuring that the educational process remains sustainable. Among these plans is the implementation of a system to protect students' rights in light of the difficult economic circumstances that universities are presently facing and the widespread use of distance learning to make sure that all students can complete their degrees despite the effects of the Corona epidemic (Kazem, 2021).

Coronavirus may herald a new era in distance learning for Jordan's universities and colleges. No longer can the need for online education options be ignored; maybe distant learning will eventually be accepted as a viable substitute for traditional classroom instruction. In addition to meeting the need to raise students' digital competency, it requires less initial investment. Due to the increased technological competence of today's students, many of whom are opting to pursue their higher education entirely online, distance learning has the potential to radically alter the landscape of traditional university curricula. Institutions of

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higher learning risk becoming operationally and competitively unsustainable if they do not embrace digital pedagogy (Abu Shkhedem, 2020).

For this reason, it is imperative that students reflect on their time here by determining the extent to which government schools offer remote learning in the wake of the Corona pandemic. Only then can they begin to formulate a strategy for the future that will aid in the development of a responsible online education infrastructure.

The Study Problem and its Questions

Regardless of time period or geographical location, any scholar studying educational systems can attest that they have always been influenced by broader societal factors such as health, economics, politics, and social mores. As a result of the global coronavirus outbreak—to which Jordan was not immune—and the present and subsequent spread of the virus in Jordan, the decision was made to stop public schools in Jordan. To ensure that education did not come to a halt, the Ministry moved forward with the implementation of the distant education system. Since learning is now accessible to everyone, and students can study remotely whenever it's convenient for them, this style of instruction is well-suited to the modern era. The study's central challenge is addressing the following question:

How do Jordanian public-school students feel about online classes in the midst of the COVID-19 pandemic?

It raises the following related question:

Does the gender variable in Wadi el-Seer Directorate of Education's public-school students' attitudes differed significantly at the significance level ($\leq \alpha 0.05$).

Objectives of the Study

- To uncover how students in Jordan's public schools felt about the efficacy of remote learning during the COVID-19 pandemic.

- To determine the weight of gender disparities in students' perceptions of the efficacy of remote learning during the COVID-19 epidemic in public schools.

To significantly improve and enhance the educational process based on the study's findings.

Significance of the Study

This study is important because it will examine how public school students in Jordan feel about the usage of distant learning in the context of the ongoing Corona crisis and its aftermath. Helping and encouraging students to engage in self-education on a continuous basis, it also offers feedback for the advantage of the Education Directorates. Furthermore, it is significant because, to the best of the researcher's knowledge, no previous study has examined how public-school pupils in Jordan view the utilisation of distant education in response to the ongoing Corona crisis. A thorough theoretical framework regarding the use of distance education is presented in the paper. This research is also important as it aims at assessing the change and innovation caused by distance learning during the period of COVID-19 pandemic where traditional forms of learning were greatly impacted. Apart from determining the efficiency of remote learning using public school students' perception, the study also captures the significance of the remote learning shift. From a practical perspective this work is relevant because it helps to explore the opportunities of distance education in enhancing the educational process, as well as presenting the possibilities of distance education in the condition of flexibility, accessibility and continuity in education during crisis. Using technology, students can continue with their learning, overcome barriers to learning, and develop relevant technologies skills.

The study also brings out the fluidity of the learning concept as a lifelong process. When the world is experiencing turbulence, for example learning through the COVID 19 pandemic; learning has to be responsive to the needs of the students as it is formative, innovative, and accountable. These attributes are important for students' self and academic development as well for equipping them to deal with a volatile world.

This work provides useful information to decision makers and academic administrators by assessing students' attitude to improve policies that foster distance education systems and maintain them as efficient, convenient learning support for regular and nontraditional education systems.

Definition of Terms

Distance Education: a newly developed organisational process that meets the needs of students by allowing them to engage with educational experiences in creative ways, utilising multimedia technology, without being limited to a specific time or location, and without relying solely on the instructor (Al-Hunaiti, 2004).

In light of the ongoing COVID-19 pandemic and its developments, the Jordanian Ministry of Education has made preparations to carry on with the educational process through a procedurally defined model of education. In this model, students are isolated from their teachers and have access to high-tech media, television channels, and electronic platforms that cover all levels of schooling and curricula.

Covid-19 pandemic: The Coronavirus Covid-19 pandemic has caused a wide range of health problems around the world, from the ordinary cold to more serious illnesses. Infection has been associated with several respiratory symptoms, including fever, cough, difficulty breathing, and shortness of breath (World Health Organisation, 2020).

Secondary students: This group consists of male and female students who are currently enrolled in the first and second years of secondary school in the Hashemite Kingdom of Jordan's public schools.

Previous Studies

The researcher looked at studies that looked at the effects of E-learning in Jordanian higher education as a result of the COVID-19 pandemic, as well as studies that looked at the effectiveness of distance education in general, including the one by Hamasha et al. (2024). The study uses a quantitative survey to look at how system use and user satisfaction are independent factors. It finds that service and information quality are big influences on both variables, and that user satisfaction is a big deal for E-learning. These effects are reduced when the system is used. This research looks at how the COVID-19 pandemic affected Jordanian universities, particularly those that offered online courses. System utilization and user satisfaction are impacted by information, system, and service quality. The study highlights the importance of these features in the effectiveness of online learning environments. The report offers practical advice and insights to help Jordan strengthen its educational policies and processes so they can better weather interruptions in higher education. In order to improve students' proficiency with E-learning technologies, the study suggests establishing a specific department to change students' intentions on the use of E-learning systems before, during, and after the outbreak. This report provides a comprehensive analysis of the pandemic's impact on Jordan's higher education system and offers recommendations for enhancing online learning environments in the future. By pinpointing the main effects of the pandemic on the independent variables and offering practical solutions, it helps in building effective E-learning systems that can raise the bar for higher education. To improve E-learning user happiness and system utilizations, the research highlights the importance of high-quality content and services.

The purpose of the study by Al-Shboul et al. (2023) is to evaluate the effectiveness of DL tools at Jordanian universities by looking at how students perceive the coronavirus. Researchers used descriptive questionnaires as part of a descriptive research strategy for this study. The sample consists of 372 undergraduate and graduate students from different universities in Jordan, both male and female. Even though the coronavirus outbreak was going on, the results showed that 73.7% of people who took the

survey continued their distance learning every day. Online learning and the use of technology to improve interactions with people, especially instructors and classmates, have been significantly impacted by the coronavirus epidemic, according to most students. E-Learning and Distance Learning applications do not differ significantly in efficacy according to gender and residence ($\alpha \geq 0.05$). There was a striking discrepancy between the age variable and the degree of higher education. In particular, the study's findings on website optimisation and instruction can help educators place an emphasis on activities that students report a high level of pleasure with. Currently, colleges are seen as major hubs for academic education. Regular updates are necessary for websites and tutorials.

Sahu (2020) sought to understand how the COVID-19 virus affected the mental health of professors and students as well as the quality of education they received at closed universities. As a result, some schools rescheduled or cancelled events, and others went to great lengths to ensure the safety of their students and employees from the extremely infectious sickness. Furthermore, instructors have begun using online pedagogy; studies have shown that COVID-19 could have negative effects on classroom instruction and students' emotional well-being; universities should pass legislation to contain the virus; and everyone on campus should be kept informed through frequent email updates. Additionally, counselling services should be accessible to help students with their mental health, and the safety of both students and staff should be a top concern. The government should also foot the bill for lodging and food for overseas students, and teachers should use technology to its full potential to enrich and improve their students' educational experiences.

Yulia (2020) conducted a descriptive study to have a better understanding of how the Corona pandemic affected the reorganization of Indonesian education. She detailed online the several approaches used by teachers all around the world to education during the global quarantines caused by the coronavirus pandemic. The study revealed that the school system is being swiftly impacted by the Corona epidemic, in addition to shedding light on the advantages and effectiveness of online learning. This is because traditional classroom instruction is declining in favour of online learning, which allows students to study from the comfort of their own homes, thereby reducing the likelihood of people coming into close contact with one another and the virus's potential transmission. The study demonstrated the significance of utilising diverse ways to enhance the efficiency and quality of online education.

While the Coronavirus pandemic in Georgia was in full swing, researchers Basilaia and Kvavadze (2020) set out to measure the effects of online courses. A private school's first week of classes and its experience with online learning during the epidemic were the sources of data used in the study. Results from online courses and the author's experiences with Gsuite and EduPage were covered in the article. Research from the first week of online classes has led academics to conclude that moving away from conventional classrooms and towards online learning has been fruitful. There are many potentials uses for the skills and information that school administrators, teachers, and students acquire in the aftermath of an epidemic. These include making small-group instruction more effective, helping students with special needs who need more time in class, and encouraging students to take more responsibility for their own learning and growth.

In a collaborative program involving three universities in France, Germany, and Switzerland, Wolfgang, Ben-Slimène, Caron & Wombacher (2020) surveyed 157 students from all three institutions to assess their perceptions of and reactions to distance learning during the coronavirus pandemic. The researchers used statistical indicators and comparisons to draw their conclusions. Students have faith in their teachers' dedication to online learning and their efforts to ease their adjustment to the new format, according to the study's findings. Students were confused about their professors' expectations during the brief transition to remote learning since some teachers had to make changes to their lesson plans before they could fully include distance learning. So that students are under constant stress from having to adapt to new circumstances and deal with the heavy load of missing subject-to-task coordination in their coursework; E-mail, WebEx, and Moodle are the learning tools used, and the infrastructure is adequate; students sometimes prefer live sessions to discuss and clarify tasks, and they also find that sessions lasting more than two hours are ineffective.

Research by Al-Omari (2020) sought to assess how faculty members at Mutah University have used and felt about the Moodle e-learning management system, as well as the challenges that have prevented its wider adoption. A descriptive-analytical methodology was employed in the investigation. Five hundred and twenty-three professors made up the study's sample. The study's findings revealed a medium level of system use and barriers to its widespread adoption, as well as good sentiments towards the system and survey responses. The results also revealed disparities in usage based on scientific rank, with professors using the most resources compared to those in the ranks of assistant professor, lecturer, and associate professor. There were also differences in the types of colleges used, with humanities colleges being more prevalent. Lastly, there were differences in the years of experience between those with less than five years, six to ten years, eleven to fifteen years, and more than fifteen years of indictment.

Another study that Romi et al. (2002) undertook was to determine how tenth graders felt about online education, taking into account factors like socioeconomic status and computer literacy. The sixty students who participated in the study were split evenly between two groups: thirty in the tenth grade and thirty who had dropped out of school but were given remedial reading and writing instruction. The study found no differences in attitudes towards e-learning based on demographic variables. It also found that dropouts' attitudes were different from students' attitudes, which ran counter to the study's assumptions. Lastly, it found a correlation between computer and e-learning skills and positive trends towards e-learning.

In order to determine how secondary school pupils in Al-Madinah Al-Munawwarah felt about the use of an online learning system, Al-Muzaini and Al-Muhammadi (2019) performed research. A total of 390 students, including 208 males and 188 females, were selected at random using a stratified random sampling technique. Of this group, 148 were from the first year of secondary school, 133 were from the second year, and 109 were from the third year. In order to accomplish the study's goals, a 27-item scale measuring students' views towards the e-learning system's educational application was created and its validity and reliability were verified. Data for the study were retrieved using the following methods: t-test, one-way analysis of variance, mathematical means, standard deviations, and a Scheffe test for dimensional comparisons. Among secondary school students in Madinah, there appears to be a general tendency towards a more positive attitude towards the utilisation of the e-learning system, as shown by a total arithmetic mean of 82.3. These results were validated by the statistical analyses conducted for the study. Additionally, the survey found that students' opinions on using the online learning platform in the classroom were not skewed by gender. Various grades in the Medina region had varying opinions of the online learning system, according to the poll. For instance, second-grade kids had an average attitude of 12.4%, first-year secondary students of 75.3%, and third-year students of 49.3%.

Al-Bawi (2019) investigated the effects of Google Classroom on the attitudes and performance of computer science department students towards online education, specifically in the area of image processing. The experimental group, which included 47 kids, received weekly instruction using the online platform, while the control group, which included 48 students, received instruction in the traditional fashion. This was done over the course of a school year. Following the preparation of the experiment's needs and the assurance of its internal and external safety, its psychometric properties were determined. A measure of the movement towards electronic education and an achievement exam were developed. Compared to the traditional method, the educational platform improved the experimental group's performance and attitudes towards E-learning after all the courses, readings, and exams were completed.

In order to determine the educational community trends in the Tabuk region, Al-Humairi (2014) performed a study. The study utilised a measure to assess the educational community's stance on the implementation of e-learning. The sample included 8052% college students and 3628 percent secondary school students, as well as 412 professors and 936 teachers. The most important of the study's several findings is that there are no statistically significant differences in students' attitudes based on gender, and that the entire educational community has positive and high attitudes towards the implementation of e-learning.

The purpose of the study by Al-Shannaq and Bani Doumi (2015) was to determine how both students and instructors felt about online science education. In three secondary schools for boys in Karak governorate, a total of 118 students were divided into five groups. One group learnt through the ordinary method, while

the other four groups used various forms of electronic media, including the Internet, CDs, and a combination of the two. The teachers included both male and female educators who had experience teaching computing physics to students in the first scientific secondary grade. To achieve the study's goals, the following instruments were used once their validity and reliability were confirmed: To gauge how students feel about online education, the Teachers' Attitudes Scale on Online Education is utilised. The data was processed using statistical methods, which included calculating means and standard deviations, doing related variance analysis, running a t-test, and comparing dimensions orally. After all pertinent statistical techniques were used, the study's findings are as follows: Teachers generally have good attitudes towards e-learning, as indicated by the overall mathematical mean of their ratings on the Attitudes towards e-Learning scale, which was (76.3) out of 0.5. 2) There was a statistically significant shift in the way students felt about online education. Results showed that students' average Attitudes Scale scores dropped by 33.3 points after the intervention compared to 78.3 points before.

Method

Due to its appropriateness for the study's aims and purposes, the researcher employed the descriptive survey approach.

The study population and its sample

There were 210 male and female students selected for the study, representing a cross-section of the student body in the Wadi el-Seer Directorate of Education's public schools. A total of 105 males and 105 females were selected at random from the pool of participants.

Table 1. Percentages and frequencies broken down by the gender variable in the research

Variable	Categories	Frequency	Percentage
Gender	Male	178	53.2
	Female	156	46.8
	Total	334	100.0

In greater detail, the demographic distribution of the study participants as depicted by gender is summarized in Table 1 below in both frequency and percentage distributions. Of the total participants, 178 indicate they are male, thus constituting 53.2% of the sample respondents. Among the participants, there is a relatively equal number of female and male participants, although a slightly higher percentage of female participants were recruited than male participants 156, accounted for 46.8% of the sample. This distribution of gender into male and female contributes to the capturing of broader and diverse insights into the results of the studies.

Tool

Based on prior research and theoretical literature, including (Al-Humairi, 2014) and (Al-Muzaini & Al-Muhammadi, 2019), the researcher created and administered a questionnaire with nineteen items to learn how students at public schools felt about the efficacy of remote education during the COVID-19 pandemic.

Tool validity

In order to ensure that the study tool was valid, it was sent electronically to a group of six knowledgeable arbitrators for their feedback. The arbitrators' suggestions regarding the removal or alteration of certain items or the addition of new ones were carefully considered.

Construction Validity of the Tool

Both the overall item-to-performance correlation and the corrected item-total correlation are computed by the researcher. These coefficients must be statistically significant and have a corrected correlation coefficient of 0.30 or higher to be considered valid. Table 2 displays the coefficient values.

Table 2. Corrected correlation coefficient values for each of the tool items as a whole

N	Item	Corrected correlation coefficients
1	My education is enhanced through distance learning.	.736
2	My motivation and passion are boosted through distance learning.	.744
3	I am able to participate more actively in conversations and dialogues regarding educational problems thanks to distance learning.	.509
4	Many student difficulties can be eliminated with distance education.	.627
5	With distance learning, I am able to complete my assignments with ease.	.752
6	A form of creativity emerges for me as a result of my distance education.	.734
7	Thanks to distance education, I learnt to be responsible.	.798
8	I had less anxiety and tension as a result of my distance education.	.505
9	Study materials can be more effectively assimilated through distance education.	.599
10	The educational process is simplified by distance learning.	.837
11	I was able to benefit from distance education by making use of a variety of resources.	.662
12	I am psychologically well-supported by my distance education.	.803
13	The educational process's axes can be handled with more freedom through education.	.799
14	I found education to be both popular and fascinating.	.713
15	The challenges I'm facing can be better met through distance learning.	.717
16	I was able to get my degree in less time because to distance learning.	.562
17	I am able to remotely remedy mistakes through distance education.	.615
18	Developing scientific thinking skills is one of the many benefits of distance education.	.610
19	Education grew in popularity and piqued my interest.	.753

* *All parameters are statistically significant*

The research work therefore entitled “The Effectiveness of Using Distance Education During the Covid-19 Pandemic from Public Schools Students’ Perspectives in Jordan” analyses the findings of students’ perception about distance learning during the pandemic and the advantages and disadvantages in detail. These results show that students perceive distance education as highly efficient in reducing the educational process complexity – with the highest coefficient of 0.837. Besides, it considerably contributes to the psychological support improvement (mean value 0.803) and encourages responsibility (mean value 0.798), which speaks about the role of the challenging environment in students’ successful personal development. It is also valued by students due it flexibility regarding performance of educational tasks (0,799) and creativity (0,734). The availability of different resources (.662) and the ease with which students handle different tasks (.752), also reflect on the advantages. However, the values are lower for certain areas, which should be improved, including the areas of decreasing the level of anxiety (0.505) and encouraging students’ active participation during the discussion (0.509). Only moderate positive correlation is reported, which shows that the subjectively perceived learning capacity affords only moderate values toward study material intake effectiveness (.599) and scientific reasoning skills development (.610) which may be true in certain dimensions. Some students says that distance learning helped them graduate earlier (0.562) while others point to the possibility of aggrassing challenges (0.717) and educational intrest (0.753). In sum, the study is useful in showing the large potential for promoting students’ engagement, their sense of responsibility, and

the flexibility of distance education while pointing out the areas of practice that need enhancement to achieve its potential.

The two requirements for the corrected correlation coefficients are clearly available, as shown in the previous table.

Tool Reliability

The reliability coefficient, as determined by Cronbach's alpha equation, was obtained using the internal consistency approach. Table (3) shows the internal consistency coefficient, recursion reliability of the fields, and overall tool reliability as determined by Cronbach's alpha equation. It was believed that these figures would work for this inquiry.

Table 3. Cronbach's Alpha internal consistency coefficient test Iretest

Domain	Test/retest reliability	Internal consistency
Total	0.95	0.94

The reliability coefficient for the study is shown in Table 3 using test-retest reliability coefficient and Cronbach Alpha coefficient of internal consistency. For the overall domain, the test observation reliability has been estimated at 95 % which also interprets as excellent because assessments should be stable and consistent across two time points. The same goes also for the total Cronbach's Alpha coefficient which is 0.94 meaning that all items used in the study are highly interrelated. The study findings also show that the survey instrument employed in the study is valid and retains inter-observer reliability and reliability, thus giving confidence in the stability and dependability of the collected data.

Study Variables

The independent variables

The use of distance education

The mediating variables

Gender, and it has two levels (male and female).

Statistical Methods

Data were analysed using various statistical methods to address the study's objectives:

Descriptive Statistics: Arithmetic means and standard deviations were calculated to summarize students' responses to each questionnaire item and provide an overview of their perceptions.

Inferential Statistics: An independent t-test was employed to examine whether students' perceptions differed significantly based on gender at a significance level of

$$\alpha = 0.05$$

Other statistical measures, such as the standard error and confidence intervals, were applied to validate the findings and ensure the reliability of the results.

The use of these methods ensured a comprehensive analysis of the data, enabling the researcher to draw meaningful conclusions about the effectiveness of distance education from the students' perspectives.

Findings

In this part, we will go over the study's results and how they relate to the research questions in the following sequence:

Analyse the data in light of the research topic

How do Jordanian public-school students feel about online classes in the midst of the COVID-19 pandemic?

The first question was addressed by calculating the means and standard deviations of the opinions of Jordanian secondary school students regarding the use of distant education:

Table 4. Standard deviations and arithmetic averages of students' views on the efficacy of remote education during the COVID-19 epidemic in Jordanian public schools, arranged in descending order of effectiveness

Rank	N	Items	Arithmetic average	Standard deviation	Degree
1	1	Learning from a distance has enhanced my academic experience.	4.81	.564	High
2	11	It was useful because it cited a number of different sources.	4.70	.574	High
3	9	Students are able to absorb course materials more effectively when they attend classes remotely.	4.62	.608	High
4	15	My difficulties are being addressed via my distance education.	4.61	.595	High
5	2	My motivation and excitement are both boosted by distance education.	4.55	.669	High
6	17	I am able to teach remotely by quickly fixing mistakes.	4.49	.730	High
7	12	I find that the psychological benefits of distance education are sufficient.	4.48	.717	High
8	18	Aids in the maturation of a scientific mind	4.48	.741	High
9	10	It simplifies the process of learning.	4.47	.819	High
10	7	I learnt to be more self-reliant through my distance education.	4.44	.826	High
11	8	I had less anxiety and tension as a result of my distance education.	4.39	.765	High
12	16	My time in school was cut short by distance learning.	4.37	.670	High
13	13	A wide range of options for addressing the learning process's axis is made available by education.	4.23	.938	High
14	6	For me, taking classes online has given rise to a new form of originality.	4.11	1.059	High
15	19	Education grew in popularity and piqued my interest.	4.11	.889	High
16	14	Education grew in popularity and piqued my interest.	3.99	1.118	High
17	5	My schoolwork is always done quickly and easily thanks to my distance education.	3.99	1.094	High

18	3	I am able to participate more actively in classroom debates and dialogues because to my distance education.	3.63	1.227	High
19	4	Many student concerns can be alleviated by distance education.	4.33	1.113	Moderate
Total				.561	High

With an arithmetic average of 4.81, Item (1), which asserts that "distance education works to enrich my education," emerged as the top performer among the items in Table (4), which displays scores ranging from (3.63-4.81). Item 19, which states: "It helped eliminate many student problems," came in bottom with an average score of only 3.63. On average, secondary school students in Jordan had a positive impression of online education (4.33). The analysis showed that the use of distant education in schools at the Wadi el-seer Directorate of Education has a positive influence, especially considering the upcoming COVID-19 pandemic. This proves the first issue. A standard deviation of .560 and a mathematical average of 4.33 were the results for the entire field in this study.

Discussing the results related to the study sub-question

Does the gender variable in Wadi el-Seer Directorate of Education's public-school students' attitudes differed significantly at the significance level ($\leq \alpha 0.05$)?

In order to determine the answer to this issue, we ran the tool through an independent t-test to see if there were any statistical differences based on the gender variable.

Table 5. The overall results of the gender variable's independent t-test applied to the tool

Domain	Gender	Mean	t. value	Sig
Tool as a whole	Male	3.785	0.967-	0.336
	Female	3.840		

According to the previous table, the t-value of -0.965 for the entire tool does not satisfy the requirements for statistical significance at the $\alpha = 0.05$ level. This indicates that the sample's male and female members do not differ in their perception of the tool's overall averages. Given that all students, regardless of gender, had equal access to and impact from distant learning, it is fair to presume that male and female students alike formed similar impressions and trends as a consequence of their experiences with the medium.

Discussion of the Results

The results show that majority Jordanian public-school students were open to the idea of attending classes remotely during the COVID-19 pandemic. With a mean score of 4.80, the item 'distance education boosts my education' was the most highly ranked, suggesting that students learnt a lot from the course. This discovery lends credence to the findings of previous studies that demonstrated the benefits of online education in terms of accessibility, efficiency, and adaptability (Hamasha et al., 2024; Yulia, 2020). Similarly, the study found that students were able to absorb more of the course content through distant learning (mean = 4.61). This research backs up the findings of Basilaia and Kvavadze (2020), who found that students in Georgia were more engaged with course materials when they were taught online, even during the COVID-19 pandemic.

"Distance education helps eliminate many student problems"—3.62 (al)—is one aspect of online education that is falling short of students' expectations. Similar to what was observed in Wolfgang et al. (2020), Shin (2020) demonstrated that students experienced challenges with technological issues and had unclear expectations of online classes.

Concerning gender differences, the results of the cross tabulation analysis confirmed the findings of Al-Shboul et al. (2023), who also discovered that the effectiveness of e-learning was not significantly different among Jordanian universities, and that there was no significant difference in the students' perceptions of e-learning based on gender. This suggests that the dynamics of online learning had the same effect on male and female pupils.

Consistent with earlier studies, this one confirms that students have more access to educational possibilities thanks to remote learning, but it also raises questions about whether or not this method is truly effective in catering to each and every student's unique requirements. This study contributes to the existing literature that suggests digital learning systems require improvement due to the constant emergence of new issues.

Conclusion

The goal of distance education is to provide students with access to course materials through the use of online or other forms of interactive connection with their teachers. It is a cutting-edge approach to teaching that varies in context. The phrase "distance education" describes a method that frees students from physical and temporal limitations in order to provide them with access to training and education. It gives students more leeway in how and when they study. Learning that involves utilising applications of information technology, computing, and communication in more than one location can be characterised as this. It is a branch of education that seeks to deliver instruction to students in ways other than classrooms, typically on an individual basis, through the use of various technological tools and pedagogical approaches. In the years to come, online education will be the norm. The present generation is defined by its heavy reliance on smartphones and the multitude of applications they use. Consequently, there has been a worldwide shift away from contentment with traditional study methods and towards a desire to actively participate in educational activities through mobile devices.

Recommendations

1. More investigations and research involving various samples and stages should be conducted.

Second, to ensure that the Ministry of Education has the resources it needs to continue operating and overseeing remote learning effectively.

3. To back national initiatives that advance the concept of online learning and strengthen partnerships with the Jordanian Ministry of Education.

4. To improve the distant education system over time, adapt to new technologies, and learn from other countries' mistakes and successes.

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