

Perceptions of Secondary School Students in Mafrq Governorate towards Distance Learning and Self-Learning in Light of the Corona Pandemic

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Abstract

This study aimed to examine the perceptions of secondary school students in Mafrq Governorate towards distance learning and self-learning during the COVID-19 pandemic. To achieve this, the researcher designed a questionnaire consisting of 30 items, the validity and reliability of which were confirmed. The questionnaire was distributed to a sample of 582 high school students in Mafrq Governorate. The study adopted a descriptive survey approach. The results indicated that the perceptions of secondary school students in Mafrq Governorate towards distance learning and self-learning during the pandemic were high. Additionally, there were statistically significant differences at the significance level ($\alpha = 0.05$) in the perceptions of the study sample members due to gender, with females showing more positive perceptions across all fields and the overall score. Differences due to the academic branch were also statistically significant, favoring students in the scientific branch. Moreover, differences related to the students' grade level were significant, with second-year students showing more positive perceptions. The study also found a direct, positive correlation between distance education and self-learning. Based on these findings, the researcher recommends increasing efforts to implement distance education as a means to develop self-learning skills in all schools across Jordanian governorates.

Keywords: Distance Education, Self-Learning, Corona Pandemic, Secondary School.

1. Introduction

The pandemic of the spread of the Corona virus came suddenly on science and on Jordan in particular, and led to the suspension of all aspects of life, including education in schools, as education stopped in all educational institutions, and that distance education is the best solution for continuing education in light of the Corona pandemic. The spread of the Corona virus led to the suspension of face-to-face education in public and private schools in Jordan, and the Jordanian Ministry of Education found itself compelled to switch to distance education in public and private schools, in order to prevent the spread of the Corona virus among students, teachers and Jordanian society.

COVID-19 has devastated the education sector. School closures have disrupted learning for more than 1.6 billion students around the world. As of January 2021, UNESCO estimates that more than 234 million children and youth remain affected by school closures in 33 countries, equaling more than 13 percent of enrolled learners worldwide. An estimated 11 million girls may never return to schooling. In addition, the effects of the pandemic exacerbated pre-existing education inequality, especially disadvantaged girls, learners with disabilities, people living in extreme poverty, and other marginalized groups (US Agency for International Development, 2021).

And institutions in Arab countries have resorted to The option of distance education, due to the necessity of continuing the prescribed school curricula and filling any educational gap that may result from the exacerbation of the crisis, and in Jordan, which did not It is free from the virus and its impact on society and has developed a tight crisis plan to prevent the spread of the Corona virus in educational institutions Students disrupt their studies, and to ensure students' right to education during the exceptional circumstances that the Kingdom is going through and the state's actions Measures to contain the spread of the Corona virus and prevent its spread An integrated plan for distance education was adopted, which included creating your lesson platform and broadcasting lessons Television for students of all grades(Miqdadi, 2020).

The reason for using distance education is due to its positive benefits and effects, as distance education is fun and interesting and achieves the desired educational results, and that the results of students in distance education are better than the results of traditional education, and that distance education increases students' responsibility for their learning, and develops and improves their level of motivation to learn. They develop self-learning (Al-Zahrani, 2021).

Today, distance education has become dependent on modern technology such as computers, tablets, and smartphones, as there are educational means remotely, which provide direct communication between the teacher and the learner at the same time, such as telephone communications and social media. Distance education is available to people everywhere, regardless of time, and it is what websites specialize in distance learning or. Use Universities are like videos that teachers record and then students watch in their spare time, or programs that are shown on Televisions, which broadcast educational materials or messages via the Internet, such as social media, Facebook, Twitter, YouTube, or E-mail (Amirh, 2019).

The Distance education has the advantage that it provides learning at anytime and anywhere, and helps students to become self-reliant; Which encourages their independence, and gives them the freedom and boldness to express themselves compared to traditional education, and the student gets immediate feedback where the formative self-assessment process and the final evaluation are available, and sources vary in light of the Corona pandemic(Alenazi, 2021).

So Self-learning is one of the modern contemporary trends in education, especially in light of the Corona pandemic, and it came as a result of the increasing demand for knowledge and through the use of distance education, and the spread of the Corona virus led to finding ways and methods that contribute to providing opportunities for self-learning, so self-learning has become a requirement in this Era to face the rapid changes, including the Corona pandemic(Asiri, 2020).

And the Self-learning also aims to provide students with cognitive and technical skills and basic skills for self-learning. Self-learning considers individual differences between students, and develops the student's personality in its various aspects, becomes able to act independently, develops personal responsibility, and allows the student to discover his learning capabilities (Al-Qadh, 2020).

And Jordan keeps pace with modern technological developments in the field of education and current events quickly after the spread of The Corona virus, which has become threatening the lives of millions of people in many countries around the world, so Jordan thought of an alternative for students for fear On the study that stopped in all countries, and the Ministry of Education in Jordan prepared the e-learning platform, which is used in Teaching students and requests remotely, and all students can get daily lessons that are published through this platform e . All students in Jordan can register on your lesson platform and receive lessons electronically during this period, as it was launched This platform is in the early days of the start of the last crisis, and it aims to provide educational lessons to students for free, as students enter On the platform, as well as parents, and browse all the contents without incurring any costs, without consuming the package for the mobile As well as the home subscription to the Internet, and the timing of the daily lessons will be from six o'clock this morning and continue until the hour Seven in the evening, the student can listen to the lessons by registering on the platform and then choosing the school stage to which he belongs and doing Follow-up lessons(Jordanian Ministry of Education, 2020).

1.1 Literature Review

The following are some of the previous studies that dealt with the subject.

Maphosa (2019) study aimed to Interrogating the Art of Developing Self-Learning Material for Open and Distance Learning (ODL) Students. Open and distance learning (ODL) thrives on students' utilization of learning materials that are designed in ways that allow them to learn on their own in the absence of a lecturer or tutor. This paper discusses what self-directed learning is and highlights the principles of writing self-learning materials for ODL learners. Various self-material materials utilized in open and distance learning are explored. In the paper, the writers further explore the nature, characteristics, and importance of self-learning materials on ODL. The writers further discuss theories underpinning the utilization of self-instructional materials, The paper further interrogates how learning material developers can engage in the effective development of self-learning materials in both print and electronic formats. Conclusions are drawn on the importance of professionally training material developers in developing high-quality self-learning materials for ODL learners.

De Silva (2020) study aimed to Developing Self-Regulated Learning Skills in University Students Studying in the Open and Distance Learning Environment Using the KWL Method, Open and Distance Learning (ODL) is considered an important strategy for increasing educational access. However, students learning in ODL environments face many challenges. Studies have indicated that students with self-regulated learning (SRL) skills are more likely to succeed in ODL environments. Studies have demonstrated that through instructional strategies, tutors can teach and help improve SRL skills. This development of SRL skills may lead to reduced drop-out rates. To examine the suitability of SRL skills development strategies, the researcher of this study utilized

a KWL (What I Know, What I Want to Know, What I Learned) method in the ODL environment in Sri Lanka to help develop SRL skills in university students. This study adopted an action research approach, and twenty-four (24) Bachelor of Education students and three (03) educators at the Open University of Sri Lanka were the participants. Zimmerman & Moylan's (2009) self-regulated cycle of learning model was used for the intervention. A Motivated Strategies for Learning Questionnaire (MSLQ, 1991) was administered to measure students' SRL skills. Observations, reflections, and focus group discussions were used to collect qualitative data. The study's findings indicated that the KWL method contributed to the improvement of self-regulated learning skills among student participants.

The Bashir (2020) study aimed to highlight the relationship between self-directed learning and academic achievement and the comparison of self-directed learning via online and conventional university learning. A self-developed survey was used to collect data from online distance and conventional learners. All the students of the Faculty of Education of one online and one conventional degree awarding universities were the population of this study. There were (1139) students enrolled in online, and 1809 students enrolled in conventional degree awarding universities in the Faculty of Education for Spring 2019. A sample of 590 students (20% of the population) out of total (2948) students were selected, using a simple random sampling technique. Data was analyzed by using a t-test, Pearson r to find out relationship between variables. Findings indicate significant difference between SDL online and conventional university students. Also, correlation of SDL with academic performance is high in students learning via online contrary to that of conventional university students. The study suggests that using SDL as teaching approach to develop students' abilities to self-regulate their teaching-learning process.

Al-Rababeh (2020) study aimed to discover the Role played by open distance learning (ODL) on motivating the self-learning among Az Zarka private university's students. The study sample consisted of (138) students from Az Zarka private university. The data was collected by ODL and self-learning questionnaires. The results revealed that the study sample evaluation to ODL and Self-Learning was moderate, and there is a statistically significant relationship between ODL and self-learning. The researcher recommended of generalization of Az Zarka university experiment of ODL on other public university in Jordan.

Funa & Talaue (2021) study aimed to Constructivist Learning Amid the COVID-19 Pandemic: Investigating Students' Perceptions of Biology Self-Learning Modules, as an emergency response, students from Philippine public schools were provided learning modules based on a minimized list of essential learning competencies in Biology. Using a cross-sectional survey method, we investigated students' perceptions of the biology self-learning modules. Senior high school STEM students from grades 11 (117) and 12 (104) participated in a survey using a questionnaire uploaded online through Google Forms. The survey results indicate that majority of the students perceived the modules positively, suggesting that aspects of the modules that were salient to students corresponded to essential elements of constructivist pedagogies. However, during interviews, students reported several difficulties in learning with BSLM as it was constrained by, to name a few, the use of unfamiliar words, lack of access to supporting resources, slow internet connection, and time constraints. To address these problems, teachers reported that they gave deadline extensions, complemented modules with other channels of support, and used

online and offline platforms for reaching out to students to answer their queries and plan out their schedule for the week. The findings across the data sources point to the complex demands of emergency distance education that teachers, as curriculum designers and enactors, need to bear in mind to craft productive pedagogies, constructivist or otherwise, during this unprecedented time.

Manganello, et, al (2021) study aimed to A Dashboard to Monitor Self-Learning Behaviors' in Online Professional Development, this paper reports on usage and impact on learning achievements of a dashboard developed to help monitor self-regulated learning behaviors in an online professional development path. The design of the path as well as of the dashboard were grounded on a pre-existing conceptual framework distinguishing between four different types of self- learning behaviors' taking place in professional learning networks and underpinning professional practice sharing. One of the objectives of the path was to promote such behaviors among participants, and the dashboard was designed to support their self-monitoring. Data was collected through usage log files analysis, a survey, and pretest and posttest. The results shed light on participants' actual usage of the dashboard, their opinion regarding its usefulness in relation to its capability to measure and support their SRL processes, and the dashboard's actual impact on their learning achievements. Moreover, some limitations in the current configuration of the dashboard emerged, which can guide further development.

Dolighan & Owen (2021) study aimed to examine secondary teachers' efficacy for teaching in a fully online teaching environment during the sudden transition to online teaching due to the COVID-19 pandemic. The study sought to identify how specific variables, teaching experience, professional development (PD) experience, and teaching supports correlate with the self-efficacy perceptions of teachers transitioning to online teaching during a pandemic. More specifically, we examined self-efficacy perceptions of teachers in the domains of student engagement, instructional strategies, classroom management, and computer skills. The instrument used to measure teacher efficacy for online teaching was a 32-item, web-based survey that was given to Ontario secondary teachers in a southern Ontario Catholic district school board. We argue that prior experience with online learning such as additional qualification (AQ) courses or online PD would build greater self-efficacy amongst teachers as they transition to online learning. The results indicate that higher online teaching efficacy scores correlated with having taken online AQ courses and online PD sessions. The highest online teaching efficacy scores correlated with having previously used a board-provided learning management system (LMS) and using virtual technology supports. These indicators are correlated with higher scores of online teaching efficacy but require further investigation as to how they can better provide support for teachers in online learning environments.

Debes (2021) study aimed to utilize survey methods, aimed to investigate the advantages and disadvantages of distance learning during COVID-19 pandemic over the conventional learning from the point of view of the university administrators and lecturers. The data were collected using quantitative method via an in-depth interview form administered to randomly selected 14 administrators and 13 lecturers in different universities in North Cyprus. The data were analyzed using descriptive statistics and variance analysis. The results showed that except for one participant, majority of the participants stated that they had experienced educational challenges during the COVID-19 pandemic. In addition, the participants encountered some problems such as

the assessment and evaluation challenges (9.7%), technical challenges (41.9%), learners' participation challenges (19.4%), and effectiveness of teaching challenges (29.0%).

Thus, this study It is distinguished from previous studies in dealing with the impact of Distance Education on the development of Self-Learning in light of the Corona Pandemic from the point of view of Secondary School Students in Mafraq, as well as by preparing a questionnaire to measure the impact of Distance Education on the development of Self-Learning in light of the Corona Pandemic from the point of view of Secondary School Students in Mafraq that previous studies did not Literature Review.

2. Statement of the Problem and Questions of the Study

The Distance education has an important and essential impact on the success of the educational process, in light of the great technological development and with the spread of modern means of communication from a computer, the Internet, and multiple media, such as: audio, image, and video, which are means that allowed a large number of people to receive education with ease and ease. With less time and effort, and Self-learning is a process in which people determine their own learning necessities, aims, and learning sources with or without the help of others, Self-learning is regarded as a valuable skill in educational environments, among students, self-learning is a process by which the students try to acquire systematized knowledge.

And given the conditions that the entire world is currently experiencing, represented by the spread of the Corona virus, educational institutions suddenly found themselves forced to switch to distance learning to ensure the continuity of the teaching and learning process, and to use the Internet, smart phones and computers to communicate remotely with students. In Jordan, traditional education stopped and switched to distance education, as students were stopped from attending schools to prevent the spread of the Corona virus among students, teachers and society, the current study sought to reveal the Perceptions of Secondary School Students in Mafraq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic.

2.1 Questions of the Study

1. What are the Perceptions of Secondary School Students in Mafraq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic?
2. Are there statistically significant differences at the significance level ($\alpha = 0.05$) in the Perceptions of the study sample members Secondary School Students in Mafraq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic that are attributed due to the variables (gender, Academic Branch, class)?
3. Is there a statistically significant correlation at the significance level ($\alpha=05.0$) between distance education and self-learning among secondary school students in Mafraq Governorate?

3. Objective and Significance of the Study

3.1 The objective of the study

1. A statement of Perceptions of Secondary School Students in Mafrq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic.
2. A statement on whether there are statistically significant in the Perceptions of the study sample members of Secondary School Students in Mafrq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic that are attributed due to the variables (Gender, Academic Branch, Class).
3. Revealing the relationship between distance education and self-learning from the point of view of secondary school students in Mafrq Governorate.

3.2 The importance of the study

1. The current study may be useful in improving educational outcomes through the development of self-learning among secondary school students.
2. The impact of distance education has improved to ensure the continuation of the education process in light of the Corona pandemic.
3. The current study tools can be used to measure the level of distance education and self-learning in secondary schools in Jordan. on its results in order to enhance and activate the E-Learning Platform Moodle.
4. This study may contribute to providing feedback to school curricula designers and those in charge of developing them about the extent of application of self-learning and distance education.

4. Operational Definitions of Terms

Distance Education

it is “the process of separating the learner, the teacher, and the writers in the educational environment, and transferring the traditional environment of education from a university or school and others to a multiple and geographically separate environment, which is a modern phenomenon of education that has developed with the rapid technological development in the world, and its aim is to give the opportunity of education and provide it to students who cannot obtain it in Traditional conditions and almost daily work”(Basilaia & Kvavadze, 2020).

The researcher defines it procedurally.

as the Education based on interaction between teachers and secondary school students using educational platforms, electronic applications, and electronic tests, and was measured through the study tool prepared by the researcher.

Self-Learning

it is “an organized method of teaching and learning that takes the learner as a central axis of the educational process through various educational situations to acquire skills and experiences” (Al-Qadh, 2020: 22).

The researcher defines it procedurally.

It is the learning that bears the responsibility of secondary school students and gives them experiences, skills, and knowledge under the guidance of the teacher, where students are seekers of knowledge, and was measured through the study tool prepared by the researcher.

Corona virus (Covid-19)

It is a family of viruses that may cause illness in animals and humans, and causes respiratory diseases in humans ranging in severity from the common cold to more severe diseases such as Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome (SARS), It is characterized by a rapid spread (World Health Organization, 2019).

Perceptions of Secondary School Students: The researcher defines it procedurally

It is the perceptions of secondary school students towards distance learning and self-learning in Mafraq Governorate in Jordan, and this was enabled during their responses to the study tool, which was prepared by the researcher.

5. Limitation of the study

- **Human limits:** The study was applied to (582) male and female high secondary students in Mafraq Governorate in Jordan.
- **Spatial limits:** This study was applied in public secondary schools in Mafraq Governorate in Jordan.
- **Time limits:** This study was applied in the second semester of the academic year 2021/2022.
- **Limitations:** The generalization of the current results is united in the light of the validity and stability of the study tool, the accuracy and objectivity of the responses of the study sample members to the study tool items.

6. Method and Procedures

6.1 Study Approach

In its procedures, this study relied on the descriptive analytical approach, which depends on collecting data from the study sample of secondary school students using the questionnaire prepared for the purposes of this study and studying and analyzing the responses of secondary school students.

6.2 Study Variables

The study included the following Demographic variables:

- **Gender**, and has two categories (male, female).
- **Academic Branch** has two levels (Scientific, literary).
- **Class**, and it has two levels (First secondary, Second secondary).

6.3 Study population and sample

This study was applied to a sample of (582) secondary school students in Mafrq Governorate, where the study sample was randomly selected from the study population consisting of (10618) high school students in Mafrq Governorate in the second semester 2021 -2022, where they were contacted through WhatsApp and e-mail. Table (1) shows the study sample members according to the study variables (Gender, Academic Branch, Class).

Table (1): The Participants of the study

Variable	Variable Levels	Number	Percentage
Gender	Male	268	46.4%
	Female	314	53.6%
Academic Branch	Scientific	275	55.7%
	literary	325	44.3%
Class	First secondary	242	43.6%
	Second secondary	340	56.4%
Total		582	100%

6.4 Instrument of the Study

To achieve the objectives of the study, the researcher designed an questionnaire to measure is Perceptions of Secondary School Students in Mafrq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic and it consists of (30) items, and the questionnaire was sent through the google dox application, due to the epidemiological situation and preventing the spread of Corona Virus, for secondary school students who are receiving distance education.

In order to respond to the tool items, a five-point scale was adopted, which is represented in the following: the degree of approval is very high and gives weight (5), the degree of approval is high and gives weight (4), the degree of approval is medium and gives weight (3), the degree of approval is low and gives weight (2), The degree of agreement is very low and gives weight (1). The arithmetic averages of the tool domains and the total score were judged based on the highest score on the scale being 5, the lowest being 1, and by subtracting the highest score from the lowest score equal to 4 and then dividing the difference between the two terms on 3 levels. Thus, the weights become as follows: (1-2.33 Low), (2.34-3.67 Medium), and (3.68-5 High).

6.5 Validity of the study instrument

The questionnaire of the study was presented in its initial form to (11) arbitrators with expertise and competence in the field of scientific research and teaching at Al al-Bayt University, Yarmouk University, and the University of Jordan. Aspects of distance education and self-learning in light of the spread of the Corona virus from the point of view of secondary school students in the Mafrq Governorate, as well as the appropriateness of the formulation of the paragraphs, and

expressing an opinion on the method of correcting the questionnaire. The opinions of the arbitrators focused on the linguistic reformulation of some of the paragraphs, and the researcher modified the two questionnaires in light of the opinions of the arbitrators.

6.6 Reliability of the study instrument

The questionnaire was applied electronically to an exploratory sample other than the study sample consisting of (22) secondary school students, and the Cronbach's Alpha test was used to test the stability of the questionnaire, and the questionnaire stability rate was (0.81), and the values of the paragraphs correlation coefficients ranged In the total score of the questionnaire (0.61-0.86).

6.7 Statistical treatment

- **First Question**, the arithmetic averages and standard deviations were calculated to measure the impact of distance education on the development of self-learning in light of the Corona pandemic from the point of view of secondary school students in Mafraaq Governorate.
- **Second Question** was used a three-way analysis.
- **Third question**: was used The Pearson correlation coefficient.

7. Results of the Study and Discussion

The Results Related to the First Question: “What is Perceptions of Secondary School Students in Mafraaq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic?” To answer this question, the arithmetic averages, and standard deviations of the responses of the study sample members to the tool and its fields were calculated, considering the order of the fields in descending order according to their total arithmetic means, as in Table (2).

Table (2): Rank Order, Means and Standard Deviations of the two Domains of the Perceptions of Secondary School Students in Mafraaq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic N = 582

Rank	Number	Item	Mean	Std. Deviation	Degree Attitude
1	1	distance education	3.72	0.62	High
2	2	self-learning	3.68	0.65	High
Total Mean			3.70	0.64	High

Table (2) shows that the total degree for the Perceptions of Secondary School Students in Mafraaq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic was high; With a mean of (3.70), a standard deviation of (0.64). The domains appeared in the following order: the field of "distance education" in the first place, with an arithmetic mean of (3.72), a standard deviation of (0.62). This was followed by the field of "self-learning"; With a mean of (3.68), a standard deviation of (0.65).

The arithmetic means and standard deviations of the study sample members' estimates were calculated on each field individually, as shown in the following Tables (3, 4).

Distance education domain

Table (3): Rank Order, Means and Standard Deviations of distance education N = 582

Rank	Number	Item	Mean	Std. Deviation	Degree Attitude
1	5	Distance education is better than traditional education in light of the spread of the Corona virus	3.95	0.65	High
2	8	I think that distance education has continued effectively despite the spread of the Corona virus	3.92	0.54	High
3	12	Teachers place the importance of distance education in light of the Corona pandemic	3.90	0.68	High
4	1	Participating with teachers in the evaluation of distance education in light of the Corona pandemic	3.89	0.58	High
5	13	The Jordanian Ministry of Education provides distance learning platforms	3.87	0.66	High
6	9	The Jordanian Ministry of Education provides software and applications to ensure interaction between teachers and students	3.84	0.52	High
7	15	The transition to distance education has been done with ease	3.81	0.56	High
8	4	Access to distance education platforms without obstacles and technical problems	3.79	0.62	High
9	7	Programs used in distance education include all subjects	3.78	0.58	High
10	10	Electronic exams include all subjects	3.76	0.53	High
11	3	Teachers' usage of multimedia in education	3.72	0.66	High
12	14	I have been trained to use distance learning platforms	3.66	0.57	Medium
13	6	Students have electronic devices to follow up on distance education in light of the Corona pandemic	3.64	0.69	Medium
14	11	Teachers have sufficient skills to design and produce programs	3.61	0.71	Medium
15	2	I See that distance education is boring	3.59	0.76	Medium
Total Mean			3.72	0.62	High

Table (3) shows that the total degree for the Perceptions of Secondary School Students in Mafrq Governorate Towards Distance Learning in Light of the Corona Pandemic, on the paragraphs domain (distance education), It came with a (high) degree, with a mean of (3.72) and a standard deviation of (0.62). have been classified within two degrees, one of which is high for paragraphs (5,8,12,1,13,9,15,4,7,10,3), and the other is medium for paragraphs (14,6,11,2), respectively, where the highest rating came for paragraph (5) which states: "I think that distance education is better than traditional education in light of the spread of the Corona virus", as the arithmetic mean was (3.95), and the standard deviation was (0.65) with a high degree, and the

lowest estimate was for paragraph (2), which states “I See that distance education is boring” ranked last, as it reached the arithmetic mean of (3.59), a standard deviation of (0.76) and a medium degree.

The researcher attributes this high result to the importance of distance education in light of the Corona pandemic, as distance education contributed to the continuation of education in Jordanian schools after they were closed to prevent the spread of the Corona virus, and the advantages of distance education enabled secondary school students to continue their learning in their homes, as well. The use of applications, programs and distance education platforms has positive effects, and distance education is fun and interesting, effectively achieves the desired educational results, and improves students' performance.

Self-learning domain

Table (3): Rank Order, Means and Standard Deviations of self-learning N = 582

Rank	Number	Item	Mean	Std. Deviation	Degree Attitude
1	6	I have the ability to work with a computer	3.84	0.61	High
2	5	I Take advantage of distance learning platforms in learning	3.82	0.64	High
3	8	I Choose what suits me of knowledge and skills and depending on the subject	3.81	0.59	High
4	3	I use the internet to get knowledge	3.79	0.62	High
5	9	I Subscribe to learning groups on educational platforms	3.77	0.63	High
6	12	I use electronic libraries to gain knowledge	3.74	0.68	High
7	4	I select the study material that I need to learn on distance learning platforms	3.72	0.63	High
8	10	I gain new experiences and knowledge through my distance studies	3.69	0.65	High
9	2	I have the ability to read and write down information	3.67	0.59	Medium
10	15	I have the ability to deal with computerized study materials	3.63	0.64	Medium
11	7	I Subscribe to educational sites to receive all new	3.61	0.70	Medium
12	13	I Show what you have learned to teachers	3.56	0.72	Medium
13	1	I Use the online search to get knowledge	3.52	0.68	Medium
14	14	My confidence increases every time I learn something new	3.51	0.69	Medium
15	11	It is difficult to get knowledge	3.50	0.71	Medium
Total Mean			3.68	0.65	High

Table (4) shows that the total degree for the Perceptions of Secondary School Students in Mafrq Governorate Towards Self-Learning in Light of the Corona Pandemic, on the paragraphs domain (self-learning), It came with a (high) degree, with a mean of (3.68) and a standard deviation of (0.65). have been classified within two degrees, one of which is high for paragraphs

(6,5,8,3.9,12,4,10), and the other is medium for paragraphs (2,15,7,13,1,14,11), respectively, where the highest rating came for paragraph (6) which states: “I have the ability to work with a computer”, as the arithmetic mean was (3.84), and the standard deviation was (0.61) with a high degree, and the lowest estimate was for paragraph (11), which states “I think it is difficult to get knowledge” ranked last, as it reached the arithmetic mean of (3.50), a standard deviation of (0.71) and a medium degree.

The researcher attributes this high result to the importance of self-learning in light of the Corona pandemic, as self-learning enabled secondary school students to learn themselves by acquiring skills and knowledge on their own, and by entering distance learning platforms, and secondary school students continue their learning by searching for Knowledge in Internet sites, they seek to know their needs for knowledge and skills, they have the ability to use the computer and its applications, and they also use the computerized educational materials found on distance learning platforms.

The Results Related to the Second Question: “Are there statistically significant differences at the significance level ($\alpha = 0.05$) in the Perceptions of the study sample members Secondary School Students in Mafrq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic that are attributed due to the variables (gender, Academic Branch, class)?”.

In order to answer this question, the arithmetic means and standard deviations of the Perceptions of the study sample members Secondary School Students in Mafrq Governorate in Jordan Towards Distance Learning and Self-Learning in Light of the Corona Pandemic that are attributed due to the variables (gender, Academic Branch, class), As in Table (5).

Table (5) Descriptive statistics of variables (gender, Academic Branch, class)

Variable	levels variable	N	statistical	Domain		Total Mean
				distance education	self-learning	
Gender	Male	268	Mean	3.36	3.34	3.35
			Std. Deviation	0.46	0.48	0.47
	Female	314	Mean	4.33	4.32	4.33
			Std. Deviation	0.42	0.43	0.43
Academic Branch	Scientific	257	Mean	4.27	4.26	4.26
			Std. Deviation	0.36	0.35	0.36
	literary	325	Mean	3.30	3.26	3.37
			Std. Deviation	0.44	0.46	0.51
Class	First secondary	242	Mean	3.32	3.31	3.32
			Std. Deviation	0.47	0.45	0.46
	Second secondary	340	Mean	4.26	4.28	4.26
			Std. Deviation	0.38	0.37	0.38

Table (5) shows that there are apparent differences between the arithmetic averages the Perceptions of the study sample members Secondary School Students in Mafrq Governorate Towards Distance Learning and Self-Learning in Light of the Corona Pandemic, depending on the different levels of the study variables, and with the aim of verifying the essentiality of these

differences, a triple variance analysis was conducted of the Perceptions of the study sample members Secondary School Students in Mafraq Governorate in Jordan Towards Distance Learning and Self-Learning in Light of the Corona Pandemic due to the variables(gender, Academic Branch, class), as in Table (6).

Table (6) Triple analysis results of the variables (Gender, Academic Branch, Class)

Dependent variable	Sum of Squares	DF	Mean Square	F	Sig
Gender	117.262	1	58.631	4.362	0.000*
Academic Branch	131.391	1	65.70	5.981	0.000*
Class	127.110	1	63.56	4.852	0.000*
Std. Error	143.761	579			
Total Mean	287.522	582			

It is evident from Table (6) that:

- There were statistically significant differences ($\alpha = 0.05$) because of gender in all areas and degrees, and the differences were in favor of females.
- There were statistically significant differences ($\alpha = 0.05$) because of Academic Branch in all areas and degrees, and the differences were in favor of Scientific.
- There were statistically significant differences ($\alpha = 0.05$) because of Class in all areas and degrees, and the differences were in favor of Second Secondary.

The researcher attributes this result to can be explained gender variable by the significant difference between male and female secondary school students for distance education in the development of self-learning, and this can be explained by the fact that females enjoy self-learning more than males, and this is because they possess skills and experiences, in addition to the fact that they trust their learning. As for the Academic Branch variable, this results in the fact that students of the scientific branch possess more skills, experience, and knowledge than students of the literary course. As for the Class variable, this result is attributed to the fact that the students of the second grade of secondary school can use distance learning platforms, which leads to the development of self-learning for them more than the students of the first grade of secondary school. This result differs with all previous studies because the current study alone presents variables (Gender, Academic Branch, Class).

The Results Related to the third Question: 'Is there a statistically significant correlation at the significance level ($\alpha=05.0$) between distance education and self-learning among secondary school students in Mafraq Governorate?'. To answer this question, the Pearson Correlations coefficient was calculated between distance education and self-learning among secondary school students in Mafraq Governorate.

Table (7): Pearson Correlations coefficient between distance education and self-learning N = 582

	Pearson Correlation	Distance Education	Self-Learning	Total
Distance Education	Pearson Correlation	0.71(**)	0.70(**)	0.71(**)
	Sig	0.000*	0.000*	0.000*
	N	280	280	280
Self-Learning	Pearson Correlation	0.69(**)	0.71(**)	0.70(**)

Total	Sig	0.000*	0.000*	0.000*
	N	280	280	280
	Pearson Correlation	0.70(**)	0.71(**)	0.71(**)
	Sig	0.000*	0.000*	0.000*
	N	280	280	280

* Statistically significant at the significance level (0.05).

** Statistically significant at the significance level (0.01).

Table (7): shows that there is a direct positive correlation between the distance education and self-learning.

The results showed the existence of a positive direct correlation between the fields of distance education and self-learning, and the researcher may attribute this positive result to the method of distance education and the method of self-learning among secondary school students in the Mafraq Governorate. This result differs with all previous studies because the current study alone presents.

8. Recommendation

In light of the results of the research study:

1. Increasing interest in the application of distance education and self-learning in schools.
2. Enhancing self-learning among secondary school students in Mafraq Governorate in Jordan.
3. Conducting studies to find out the most important obstacles to education from the point of view of secondary school students, in other governorates in Jordan.
4. Conducting follow-up studies to find out the importance to self-learning from the point of view of secondary school students, in other governorates in Jordan.
5. Conducting similar studies aimed at identifying the training competencies necessary for secondary school students for their learning practices in the right way using distance education in light of the Corona pandemic.

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Ethics Declarations

This study was conducted in accordance with the Declaration of Helsinki (1964) guidelines and was approved by the Research and Ethics Committee of the Ministry of Education in Mafraq, Jordan. The following ethical principles were strictly adhered to throughout the research process:

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- Voluntary Consent: Informed consent was obtained from the relevant authorities at the Ministry of Education in Mafrqa, Jordan.
 - Minimization of Risks: Efforts were made to minimize any potential risks to participants.
 - Confidentiality: Participant information was kept confidential.
 - Transparency: Participants were informed about the research content and objectives.
 - Documentation: All research stages and results were thoroughly documented.
 - Reliability: The research methodology and instruments were designed to ensure reliability.
 - Validity: Data processing methods ensured the validity of the research findings.

Data Availability Statement

The datasets collected and analyzed during this study are available upon reasonable request from the corresponding author.

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Conflicts of Interest

The author declares no conflict of interest.

Author Contributions

- **Rami Al-Mashaqbeh:** Conceptualized and designed the study, collected and analyzed the data, wrote the first draft of the manuscript.
- **Author:** Reviewed and edited the manuscript and approved the final version for publication.

Consent for Publication

The author consents to the submission of this paper for publication and, pending the editorial board's decision following the peer-review process, agrees to its publication. This work has not been previously published nor submitted to any other journal for consideration.

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