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Parents' Attitudes towards the Flipped Classroom Strategy and Their Satisfaction with it during the Corona Pandemic from Their Perspectives

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Abstract: This study identified the attitudes of parents of primary school students toward using the flipped classroom strategy in online learning during the Corona pandemic. The study developed a questionnaire consisting of (20) items, which was administered to a sample of (339) parents who were chosen in the simple method from the parents of students during the academic year 2020/2021, in Irbid Governorate. The instrument's validity and reliability were confirmed. The results of the study showed the existence of neutral attitudes for parents towards the strategy of the flipped classroom while supporting them electronically in light of the Corona pandemic. The results also indicated their satisfaction with the use of the flipped classroom strategy, where face-to-face instruction is lacking. It was found that there were no statistically significant differences in the attitudes of primary school parents towards using the flipped classroom strategy in teaching and learning children.

Keywords: attitudes, flipped classroom strategy, online education, COVID-19 pandemic, parents.

1 Introduction

Discussing the issues related to students' parents, especially at the primary level, became necessary after the Corona pandemic, where the education process became online and parents are having more engagement in the whole process. They are part of the online learning environment and its conditions so that the children get a share of what they have missed after the schools' closure. The emerging coronavirus crisis in Jordan became one of the most effective crises the country has witnessed. With limited economic resources and harsh social conditions, Jordan has placed the highest priority on dealing with the epidemic by implementing safety measures. The most important of these measures was the strict social distancing due to the lack of treatment for this epidemic. In this case, the greatest priority was given to controlling social behaviors (Jordan Economic and Social Council, 2020).

Several preventive measures have been taken by the Jordanian government in the attempt to reduce the spread of the virus and to protect the Jordanian society. An important step was to protect students' health and ensure the continuity of the educational process without harming the health system. Therefore, the Ministry of Education ordered schools to turn into online education and introduced an

electronic platform called Darsak. Educational lessons are presented to students through videos and recorded clips. The content is based on the curricula approved by the Ministry of Education. The Ministry also instructed schools to select distinguished teachers, who are familiar with the use of technology and online education (The Jordanian Ministry of Education, 2020). The COVID-19 pandemic forced the authorities to implement online education all over the year and this practice became an inevitable reality to students, teachers and all stakeholders (Meqdaday, 2020).

The "Ketab Technologies Company" in the Hashemite Kingdom of Jordan (2013) initiated the flipped learning initiative. Flipped education was used in schools. The experiment was carried out using a software application prepared by the company called Dardasa. This experiment aimed to focus on the student, who is the center of the educational process, and to create an enjoyable time for students in the educational session. The experiment was aiming to build an interactive and participatory classroom environment based on the student, focusing on a deeper understanding of the meanings, concepts, and desired relationships, and not relying on remembrance, but rather depends on training and application on the traditional educational methods in the class. The flipped classroom

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strategy also took into account the individual differences among students within the class and provided support and assistance to students who need it. Among the recommendations of this experience were paying attention to providing and equipping a resource room; to help teachers to record videos, to shorten the time and effort to produce and upload them to the Internet, to provide support to teachers to facilitate their work and account for their workload, and to train teachers (Khalil, 2021).

In addition, parents work in multiple and different fields, and the corona pandemic affected them differently, especially in the ways education was presented to their children. Therefore, the study sought to investigate the strategies that affect students' learning, especially the flipped learning strategy, which depends on technology and changing the traditional style of education to build the student's personality. This teaching strategy is centered around students rather than teachers, students watch educational videos through audio-visual techniques, video stories, virtual simulation programs, and worksheets in their homes before the lesson. As for the class time, the teacher exploits it by creating an interactive learning environment in which students apply what they have learned and guiding students and their thinking (AL Zain, 2015).

Khrais (2017) defined the flipped classroom strategy as one of the educational techniques that contribute to the employment of asynchronous learning, and it includes watching videos before the class. The teacher records the lessons and their content, and the student listens to them at home and allocates the class time for effective discussions between the teacher and students, and the students themselves. Al-Ruwaili and Al-Talafha (2020) defined it as an educational method that focuses on students, so students watch short video lectures at home before class. The teacher provides an interactive environment during class. He directs the students and applies what they have learned. The researcher believes that flipped education is one of the modern types of education, based on a blended education between classroom education and e-learning, and focusing on the student mainly.

Problem statement

schools closed their gates in the 2019-2020 school year due to the conditions of the Corona pandemic, and student homes were turned into schools and classrooms. Teachers became connected with students in their homes and the parents became aware of their role in follow-up with the learning of their children. One of the strategies used in online education is the flipped classroom strategy. The problem of the study also lies in the scarcity of studies that dealt with the flipped classroom strategy from the point of view of parents, especially in the current pandemic. The researcher believes that the time is very appropriate for this study, given the circumstances imposed by the Corona pandemic. Therefore, this study came to investigate the attitudes of parents and the degree of their satisfaction with the use of the flipped

classroom strategy when they were forced to choose this type of education.

Research Questions

The present study seeks to give answers to the following research questions:

1. What are the attitudes of parents towards the flipped classroom strategy and their satisfaction with it during the Corona pandemic?
2. Are there statistical differences in the parents' attitudes towards the flipped classroom strategy and their satisfaction with it during the Corona pandemic according to the variables (educational qualification, parent, number of children studying online)?

Significance of the study

The results of the current study may benefit the designers of the curricula, as it presents a questionnaire addressed to parents to clarify their satisfaction and information about the flipped classroom strategy used in teaching children in light of the Corona pandemic. The results also will provide insights to teachers on the level of satisfaction with this strategy from the parents' point of view.

Delimitations of the Study

This study was applied to a sample of (339) parents during the first semester of 2021/2020 in the Irbid governorate. The results are limited to the responses of the sample to the instrument developed for this purpose.

2 Literature Review

There are clear steps for teaching the flipped classroom strategy that the teacher must take into account. Several studies have identified these steps (Abedi et al., 2019; Al-gamidy, 2017; Alamri, 2019). First is the preparation for the lesson by defining the objectives, so the teacher prepares a realistic picture of the lesson and the outcomes to be achieved at the end of the lesson, and then starts doing the various activities that achieve the desired goals. The teacher should identify the techniques he wants to use, so he searches for educational material, such as animations and videos, that contribute to communicating knowledge and understanding the subject. He should choose appropriate resources that are available for students to come back to when they want with ease. He should create an index of contents to help students navigate between important topics they need and work to involve parents in following up on students' studies at home.

Abanmi (2016) and Abd Al-Itayf (2016) pointed out the advantages of flipped classroom education. The flipped strategy makes the learning environment flexible and interesting by employing and using modern technologies and making the textbook a digital course with multiple tools that can be returned to at any time. This contributes to overcoming the problem of student absence, and students

who have low academic levels. This strategy gives students initial access to the content before the lesson, motivating them to prepare and prepare before the class and transforming the student's role in the educational process into a participant teacher, researcher, and analyst, which leads to the development of higher-order thinking skills.

Using the flipped classroom strategy allows students to obtain a basic level of knowledge and understanding before the start of the lesson. In this way, the time in the classroom could be specified to introduce other skills to students, such as higher-order cognitive skills. The flipped classroom strategy moved students from being passive learners to active learners. The traditional role of the teacher is changed to become a moderator and mentor to students. The use of technology enriches the flipped learning process and enhances the skills necessary for learning in the twenty-first century (Al Mamun et al., 2021).

The problems that may hinder the implementation of flipped learning are variable (Abd Al-ltayf, 2016; Abanmi, 2016). Some of the common problems are the unavailability of hardware and software necessary to prepare digital content in more than one-way, technical errors that sometimes hinder viewing the lesson due to the lack of internet, and the poor follow-up of the student while studying at home. The educational material is not monitored by parents and the teacher does not have enough time to prepare the lessons well before the class. Some teachers are weak professionally to prepare videos or record lectures, and they do not have sufficient technical expertise in how to use the content preparation tools digitally.

Birgili et al (2021) identified several requirements for the proper implementation of the flipped classroom strategy. First, the technical requirements, which include the provision of several electronic systems and programs, such as the educational content management system, the learning management system, and electronic assessment programs, in addition to providing the course electronically, virtual classes, and traditional classes, and electronic dialogue sites for experts and specialists in the hardware and software necessary for this style of learning.

Second, human requirements. The teacher must be able to teach traditional education and practical application using the computer. He should be trained to think carefully by dividing and analyzing content, and have the skills that enable him to deal with different programs to design courses. The teacher should be able to use e-mail to communicate with students in addition to the skills that help him to use the multimedia and ultra-media provided through the Internet to develop teaching strategies. As for the human requirements related to the student, they include the student's realization that he is a participant in the educational process and that his participation is important in the success of learning, and that he possesses several electronic skills that enable him to use the Internet and its services. Third, material requirements, such as providing hardware and software for preparing

lessons for the teacher, and providing devices and the Internet for students.

Previous Studies

Al-zboun (2020) investigated the effect of the flipped classroom strategy on improving the level of motivation and academic achievement of students who are slow to learn in mathematics. The researcher prepared a mathematics test and a measure of motivation, and the study sample consisted of (30) slow learners who were divided into two groups: experimental and control. The results showed statistically significant differences between the mean scores of the performance of the two study groups in improving the level of motivation. The academic achievement of the slow learner in mathematics was improved due to the variable of the teaching strategy.

Al-Ruwaili and Al-Talafha (2020) explored the effect of using the flipped classroom learning strategy in developing self-organized learning skills for second-intermediate students in social and national studies in the Kingdom of Saudi Arabia. The sample included (62) students in the second intermediate grade, they were distributed in two groups: experimental and taught using the flipped learning strategy, and the control group and taught using the usual method. The results of the study showed that differences between the scores of students in the experimental and control groups. The students who received training by the flipped classroom strategy performed better than other students.

Al Amer (2021) identified the effectiveness of using flipped learning in solving homework problems for second-intermediate grade students from the point of view of mathematics teachers in the city of Riyadh. The study developed a questionnaire as an instrument, which consisted of 20 items and was distributed to 110 mathematics teachers in Riyadh. The study concluded that there is homogeneity between the opinions of the sample and a medium to a high agreement about the effectiveness of using flipped learning in solving homework problems for students. There was a homogeneity ratio between the sample's opinions regarding the application of the flipped learning strategy on the routine, wasting student time and developing curiosity, and acquiring the student's self-learning skill as an alternative to the disadvantages of the traditional homework routine.

Khalil (2021) conducted a systematic review of studies published between 2015 and 2019 to explore the best strategies for learning and teaching English language in Palestinian universities. The study sought to explore the effect of flipped classroom strategy on teaching English language. The results of the analysis revealed that 74% of these studies presented the positive impact of the flipped learning strategy in teaching EFL in universities. The results also showed several challenges while implementing the flipped classroom strategy, such as the lack of computers for both students and teachers and the weak internet of the lack of it at all.

van Alten et al (2021) investigated the role of self-regulated learning in enhancing learning skills in the flipped learning strategy. The study included 150 students from the eighth grade. The study developed a set of activities based on self-regulated learning. The results found five distinct levels among students. The findings also showed that students who have good skills in regulating themselves achieved better while learning using the flipped classroom strategy.

Population and Sample

339 electronic questionnaires were distributed randomly. The number of visits to the electronic questionnaire was 350, of which 339 were completed to answer all questions and items of the questionnaire. Table 1 shows the distribution of the study sample according to demographic data.

Table 1: Distribution of study sample members according to demographic data.

Variable	Level	Frequency	percentage	
Guardian type	Mother	191	56.3	
	Father	112	33.0	
	Brother	9	2.7	
	Sister	9	2.4	
	Other	18	5.3	
	Total		339	100.0
The number of children studying online	One	80	23.6	
	Two	49	14.5	
	Three and more	210	61.9	
	Total		339	100.0
Academic qualification	Bachelor and higher	255	75.2	
	Lower than Bachelor	84	24.8	
	Total		339	100.0

Instrument of the study

To achieve the objective of the study, the researcher developed a questionnaire that consisted of (35) paragraphs by referring to the theoretical literature related to the subject of the study. The items of the questionnaire were reviewed by a group of judges, who presented their views on the correctness of the items. The questionnaire was modified until it reached (20) paragraphs. Likert scale was adopted to measure parents' attitudes towards the flipped classroom strategy and their satisfaction with it during the Corona pandemic.

Validity

To verify the apparent validity of the study instrument, the questionnaire by presented to a group of experienced judges. After collecting the forms from the members of the jury, the researcher made all the modifications requested by the jury members. An approval rate of 80% or more relied on the paragraph to keep it, and thus the full number of its paragraphs was preserved.

Reliability

To ensure the stability of the emotional intelligence scale.

Cronbach's alpha method was used to identify the total degree of stability of the study scale. The value of the reliability coefficient was (0.87), which is an acceptable value for this scientific research.

Findings and Discussion

4 Results of the first question

To answer the first question of the study, the mean scores and standard deviations of the sample members' attitudes towards the flipped class strategy and their satisfaction with it during the Corona pandemic were extracted. Table 2 presents the results.

Table 2 shows that the mean scores of the responses of the study sample members about the parents' attitudes towards the flipped classroom strategy and their satisfaction with it during the Corona pandemic ranged between 2.21-3.80.

Item 3 came in the first order with a mean score of (3.80), and item 19 came in last place, with a mean score of (2.21). The total mean score for the questionnaire as a whole was (2.72), and this indicates neutral attitudes among parents towards the flipped classroom strategy and their satisfaction with it during the Corona pandemic.

3 Research Methodologies

Table 2: The mean scores and standard deviations of the parents' attitudes towards the flipped classroom strategy and their satisfaction with it during the Corona pandemic, arranged in descending order according to the mean score.

Rank	NO.	Item	Mean score	Standard deviation	level
1	3	The repetitive use of the flipped class strategy tires me out for the lack of a special device for each child.	3.80	1.32	Positive
2	2	In the Flipped Classroom, I found a suitable alternative to the classroom because it matches my academic qualifications.	3.13	1.52	Neutral
3	12	I noticed that the flipped classroom strategy has created new study habits for the son/daughter.	2.87	1.26	Neutral
4	10	It allowed me the freedom to participate in the education of the son/daughter according to what suits my time and work.	2.86	1.23	Neutral
5	17	The flipped classroom strategy directed the son/daughter electronically and cognitively.	2.81	1.25	Neutral
6	8	The flipped strategy was able to mitigate the impact of the transformation of education completely electronically.	2.74	1.21	Neutral
7	11	The flipped class strategy allowed me to guide the son/daughter correctly.	2.74	1.17	Neutral
8	1	It suits me to use the flipped classroom strategy because I work in the field of teaching.	2.73	1.17	Neutral
9	15	The flipped classroom strategy allows forming sound reading habits before learning	2.69	1.24	Neutral
10	13	I found that the son/daughter got attached to the flipped classroom strategy, and it became part of their learning pattern.	2.68	1.24	Neutral
11	4	The flipped classroom strategy was able to provide an attractive learning environment for the son/daughter.	2.67	1.38	Neutral
12	18	The flipped classroom strategy succeeded in overcoming any excuse that hinders the son/daughter's learning.	2.67	1.24	Neutral
13	9	The strategy acquires son/daughter social skills because it relies on group sharing.	2.64	1.25	Neutral
14	7	The flipped classroom strategy solved a major cognitive problem for me while teaching my son/daughter.	2.61	1.27	Neutral
15	14	The flipped classroom strategy contributes to encouraging the son/daughter to self-educate	2.61	1.29	Neutral
16	16	The flipped class strategy guides the son/daughter during the performance of duties without my interference.	2.60	1.28	Neutral
17	6	The Flipped Class Strategy saved my son/daughter's learning time.	2.48	1.27	Neutral
18	20	I call on the Ministry of Education to apply this strategy to all courses	2.42	1.40	Neutral
19	5	I would like you to use the Flipped Class Strategy in all the courses that my son/daughter takes	2.35	1.22	Neutral
20	19	I like to use the flipped class strategy after the COVID-19 pandemic.	2.21	1.18	Negative
Total			2.72	0.97	Neutral

The researcher attributes this result to the fact that the teacher community in Irbid Governorate is a homogeneous society ranging between males and females who belong to the same social class and have close academic qualifications and are subject to the same qualification courses held by the Ministry of Education. The teachers of different genders have positive attitudes towards using the flipped classroom strategy with students because it has a role in increasing students' motivation to learn and increases their ability to interact and participate in class, in addition, that it engages more than one sense of students, which helps to consolidate the educational material more in the mind of the learner.

Results of the second question

To answer the second question, the mean scores and standard deviation were extracted for the responses of the sample on the questionnaire of the attitudes of parents towards the flipped class strategy and their satisfaction with it during the Corona pandemic. The variables were educational qualification, guardian, and the number of children who study electronically. The Independent Samples T-Test was applied to parents' attitudes towards the flipped classroom strategy and their satisfaction with it during the Corona pandemic. Table 3 presents the results.

Table 3: The results of the Independent Samples t-test of parents' attitudes towards the flipped classroom strategy according to the difference in the academic qualification.

academic qualification	Mean score	Standard deviation	t value	Sig.
Bachelor and higher	2.98	0.83	9.75	0.00
Lower than Bachelor	1.92	0.96		

Table 3 reveals that there are statistical differences between parents' attitudes towards the flipped classroom strategy and their satisfaction with it during the Corona pandemic, according to the difference in the variable academic qualification. The t value was 9.75, which is a statistically significant value. After reviewing the mean scores, it was found that the differences are in favor of the educational qualification (bachelor's degree and above), which

indicates that parents who have a bachelor's degree or higher degrees have more positive attitudes towards the flipped class strategy and their satisfaction with it during the Corona pandemic.

The following table shows the attitudes of parents toward the flipped classroom strategy according to the type of guardian and number of children.

Table 4: The results of the ANOVA analysis of parents' attitudes towards the flipped classroom strategy according to the type of guardian and number of children who study electronically.

variable	Level	Mean score	St. deviation		Sum of squares	Freedom value	Mean square	F value	Sig.
Guardian	Mother	2.85	0.89	Between groups	5.551	5	1.110	1.174	0.322
	Father	2.60	0.51	Within groups	314.988	333	0.946		
	Brother	2.52	1.59	Total	320.539	338			
	Sister	2.60	1.65						
	teacher	2.63	1.23						
	other	2.65	1.46						
Number of children	One	2.60	0.98	Between groups	2.336	2	1.168	1.233	0.293
	Two	2.72	0.97	Within groups	318.203	336	0.947		
	Three and more	2.80	0.97	Total	320.539	338			

It appears from Table 4 that there are no statistical differences between parents' attitudes towards the flipped classroom strategy and their satisfaction with it during the Corona pandemic, according to the difference of two variables (guardian, number of children who study electronically). The *f* values were not statistically significant. The researcher attributes this result to the fact that obtaining a high academic qualification for parents increases their attitudes to the need to diversify the teaching strategies that make the learner the focus of the educational process. Technology and social media are important means of attracting students, and because of them, the role of the teacher in the educational process has changed from the tutor to the mentor.

In the past, the teacher relied upon traditional methods in treating students' problems, such as repeating the material more than once, and this required a great deal of time and effort from him, or giving longer periods in the event of receiving oral answers from them or when doing tests. However, today, in light of scientific and technological development and the increasing experience of teachers in the field of teaching, using modern strategies, such as the flipped classroom strategy, greatly reduced the burden placed on the teacher and changed his role to be a supervisor and a guide for student learning.

Recommendations

The study recommends providing training opportunities for computer teachers in the areas of using tablet applications for flipped classrooms. It is also recommended to educate parents about the importance of using the flipped classroom strategy in educating their children. Training courses on flipped classrooms in teaching for female teachers should be provided and more attention to the provision of the Internet for students at home should be given.

Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

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