

Attitudes of intellectual disabled children 's teachers towards E-learning during Corona pandemic

اتجاهات معلمي الأطفال ذوي الإعاقة الذهنية نحو التعلم الإلكتروني أثناء جائحة كورونا

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Abstract

The aim of this study was to investigate the attitudes of intellectual disabled children 's teachers towards E-learning during Corona pandemic. The descriptive and analytical method was used. Teachers from the primary stage in special education were selected for data collection. An online questionnaire was used to collect data from the target teachers. Data were collected via an online questionnaire survey. e-learning during the outbreak of the Covid 19 pandemic provides flexibility in Lesson planning, implementation and evaluation.

Keywords: Attitudes, intellectual disabled children, teachers, E-learning, Corona pandemic.

Introduction

The spread of Covid-19 in the countries of the world in general, and in the Arab world in particular, was not like any previous event, because with the end of (2019) and the beginning of (2020) the whole world faced a catastrophe resulting from the outbreak of the Corona virus; With the emergence of the new Corona pandemic, a change occurred in all lifestyles, as the spread of the Corona epidemic caused a complete halt to life, and caused immense suffering to the vast majority of Arab countries.

Coronaviruses are a broad strain of viruses that cause disease to humans, and the newly discovered Corona virus causes Covid-19 disease, and there was no knowledge of the existence of this new virus and its disease before the start of its outbreak in the Chinese city of Wuhan, in December (2019). Covid-19 has now turned into a pandemic affecting many countries of the world.

الملخص

هدفت هذه الدراسة إلى التعرف على اتجاهات معلمي الأطفال ذوي الإعاقة الذهنية تجاه التعلم الإلكتروني أثناء جائحة كورونا. تم استخدام المنهج الوصفي والتحليلي. تم اختيار المعلمين من المرحلة الابتدائية في التربية الخاصة لجمع البيانات. تم استخدام استبيان عبر الإنترنت لجمع البيانات من المعلمين المستهدفين. تم جمع البيانات من خلال استبيان عبر الإنترنت. يوفر التعلم الإلكتروني أثناء تفشي جائحة كوفيد 19 المرونة في تخطيط الدروس وتنفيذها وتقييمها.

الكلمات المفتاحية: الاتجاهات ، الأطفال ذوي الإعاقة الذهنية ، المعلمون ، التعلم الإلكتروني ، جائحة كورونا

Schools have suddenly stopped due to the Corona pandemic; without empowering it with more time to make any preparation for this event, and thus forced to reorganize its operations and continuity to stay in the provision of educational services, and in light of these volatile conditions, many schools tried to keep pace with these fluctuations (UNESCO, 2020a), so some used educational methods during the pandemic and crises, including: Emergency Distance Education , which refers to the temporary shift in the learning method to the alternative method due to crises. It includes the use of remote teaching methods as a complete alternative to direct learning, as this type of education is mainly aimed at providing temporary access to educational support and learning in a fast manner until the pandemic or crisis ends (World Health Organization, 2020). Schools have also resorted to using some electronic communication methods that enhance the learning of students

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with disabilities during the outbreak of the (Covid 19) epidemic, including: video conferences, phone calls and e-mails. As many schools have tended to use electronic alternatives to learning during school closures, and the teacher communicates with parents to enhance family support for students with disabilities during distance learning in electronic environments (Zhang & Ma, 2020).

Despite the efforts made by the government to address this pandemic, which quickly affected the entire world; however, a problem appeared in the education of people with special needs (Robinson, Al-Freih & Kilgore, 2020), in light of this pandemic, which led to the resort to technological means in the education of people with special needs, in an effort by the government to reduce the rapprochement between children with special needs, because they have a special health nature that differs from their peers from normal children (Kizilcec et al., 2020).

People with disabilities are among the people most affected by the Coronavirus disease, due to their inability to access information about the general health status, and they face large barriers that impede the adoption of basic hygiene measures, and health facilities that are inaccessible to them if they are infected with the Coronavirus disease, and it will end many of them are exposed to severe health conditions, which can lead to death (Sun, Tang & Zuo, 2020).

The outbreak of the (Covid 19) epidemic has resulted in severe negative impacts on the lives of people all over the world in general, and on people with disabilities in particular (Ruthotto et al., 2020). Taking care of them has become of great importance to enhance their psychological and emotional side, especially that social distancing negatively affects people with disabilities as something new and difficult for the disabled to perceive, which exposes them to more serious health risks and problems (Basilaia & Kvavadze, 2020). Therefore, immediate measures and solutions must be taken to overcome the problems facing people with special needs during the outbreak of the (Covid 19) epidemic, as it led to an increase in the problems in the global education sector, and led to the spread of educational disorders and global health problems that countries failed to control. Accordingly, within a few months of the outbreak of the epidemic, patterns and lifestyles have changed dramatically throughout the world, through staying at home, working and learning

from home, and taking preventive measures; as a result, the person's freedom of movement and communication with others was restricted (Bao, 2020).

The research problem stemmed from the main question: What are the attitudes of intellectual disabled children 's teachers towards E-learning during Corona pandemic? Through presenting the main question, the following sub-questions emerge:

1. What are the attitudes of intellectual disabled children 's teachers towards E-learning (planning) to teach children with intellectual disabilities during Corona pandemic?
2. What are the attitudes of intellectual disabled children 's teachers towards E-learning (implementation) to teach children with intellectual disabilities during Corona pandemic?
3. What are the attitudes of intellectual disabled children 's teachers towards E-learning (evaluation) to teach children with intellectual disabilities during Corona pandemic?

The aim of this study was to investigate the attitudes of intellectual disabled children 's teachers towards E-learning during Corona pandemic.

Literature Review

Using technology in teaching people with intellectual disabilities.

Special education has played a leading role in terms of using computers and other technological tools in the field of special education and education, given the special difficulties involved in educating students with disabilities, and special education cadres were among the most willing educational cadres to try to employ new technology (Chambers, Varoglu & Kasinskaite-Buddeberg, 2016), and educational programs are chosen according to students' needs. Computer enriches the educational environment, and its presence in the classroom is an enjoyable addition to the educational environment for students with disabilities, as it allows many disabled people to increase focus and attention, and to actively and effectively contribute to the learning process (UNESCO, 2020b).

Special education teachers' attitudes towards employing technology.

Computer technology has become an indispensable and integral component in teaching students with disabilities, especially those of ID (Ozdamli, 2017). It is noteworthy that teachers and special education teachers see great importance in employing technology applications and e-learning in schools for students with disabilities, and this is due to the effectiveness of various technology applications in educational attainment and improving students' skills (Quinn et al., 2009). E-learning depends on the use of electronic multimedia in communication, receiving information, and acquiring skills. Which is what a teacher of students with disabilities needs (Montgomery & Marks, 2006).

Cagiltay et al. (2019) examined the views, experiences and perceptions of special education teachers regarding educational techniques in special education. The study used semi-structured personal interviews. The most important results were as follows: the existence of a severe deficiency in the use of special education teachers of technology for educational purposes due to the weakness of the infrastructure and the lack of adequate resources, and the presence of perceptions among special education teachers about the importance of using technology in improving the quality of academic results, job satisfaction in special education schools, lack of teachers' feeling of commitment to learning new technologies for educational uses in special education, and the great importance of using new technologies in special education that help in developing tools related to the detection of physical movements, touch screen and smart game techniques, and the use of new technology helps to support the teacher while teaching Self-care skills, social skills, and cognitive concepts. Technology also helps students to enhance and transfer knowledge and skills to new environments by introducing many feedback practices.

Methodology

The descriptive and analytical method was used. This method can be seen as a general study of a phenomenon present in a group, in a specific place and at the present time, and it is a method of analysis and interpretation in an organized scientific manner in order to reach specific purposes of a social problem (Loeb et al., 2017)

Sample

Teachers from the primary stage in special education were selected for data collection. An

online questionnaire was used to collect data from the target teachers. Data were collected via an online questionnaire survey. The author shared with teachers an online link via Facebook and WhatsApp groups to reach most of them to fill up the online questionnaire. The author received a total of 100 questionnaire responses that she used for data analysis.

Instrument

The researcher used a scale of special education teachers' attitudes towards employing technology in teaching people with special needs, which was prepared in light of reviewing many studies, such as those of Cabi (2016), Pepe (2016), and Williamson-Henriques (2013). The scale contained in its final form two main parts, namely: The first part: it consists of preliminary data on the research sample represented in demographic information and includes: gender, educational qualification, and years of experience. The second part: It contains the scale, and it consists of (21) items distributed in three dimensions. The first dimension: " Lesson Planning " and consists of items 1-7. The second dimension: " Lesson Implementation " and consists of items 8-14. The third dimension " Lesson evaluation", and it consists of items 15-21. The five-point Likert scale (strongly agree, somewhat agree, disagree, disagree, strongly disagree) was used to score the search tool, giving the response Strongly disagree (1), disagree (2), somewhat agree (3) Agree (4), strongly agree (5). To validate the general structure of the scale dimensions by finding the correlation coefficients between the total score for each dimension and the general average for the scale dimensions, and it was found that the values of the correlation coefficients between the total score for each dimension of the scale came with high values ranging between (0.987 - 0.991). The coefficient of reliability of the Cronbach alpha was calculated for the scale dimensions and it was found that they were suitable with high values; Where the value of the dimensional stability coefficient of the scale ranged between (0.993 – 0.994), and the value of the overall reliability coefficient of the scale (0.994).

Ethical Procedures

The participants in the study were volunteer special education teachers. All of them were provided with online required consent forms prior to asking them to complete the questionnaire and participate. They were provided with information regarding their role in

the study, the purpose of the study and the data collection methods. They were also informed that they have the right to withdraw from the study at any time during any of the procedures, though the author wishes they can continue.

Results and discussion

To give answer to the main question, which states "What are the attitudes of intellectual disabled

children 's teachers towards E-learning during Corona pandemic?", mean and standard deviation were calculated for the scale dimensions, then arranged according to the mean of each dimension. As shown in table 1. , Lesson Planning was ranked to be the first , (M= 3.78, SD=0.754), Lesson Implementation was ranked to be the second , (M= 3.72, SD=0.726), while Lesson Evaluation was ranked to be the third , (M= 3.56, SD=0.589).

Table 1.
Mean, SD and ranks for Scale Dimensions.

Dimensions	M	SD	Ranks	Response Degree
Lesson Planning	0.754	3.78	1 st	High
Lesson Implementation	0.726	3.72	2 nd	High
Lesson Evaluation	3.56	0.589	3 rd	High

This can be attributed to teachers 'awareness of the importance of employing technological technologies in various aspects of the teaching process for people with special needs during Corona pandemic, where teachers can benefit greatly from the technical capabilities provided by technology in the processes of planning, implementation and evaluation of the lesson, through the use of multimedia, educational platforms and various means of communication to achieve the objectives of the teaching process. This result is consistent with the findings of many studies (e.g Adarkwah, 2020; Edmunds, Thorpe & Conole, 2012; Ismaili, 2021), which confirm that the positive attitudes and willingness of the majority of individuals to engage in distance learning classes in the post-COVID19 pandemic indicate that there is an immense potential future for e-learning platforms.

To give answer to the first question" What are the attitudes of intellectual disabled children 's

teachers towards E-learning (planning) to teach children with intellectual disabilities during Corona pandemic?", tabular cum graphical form was used. As shown in figure 1, (See table 2.) , "I prefer to take advantage of electronic innovations to develop children's skills" came first (M= 3.88), followed by " I prefer multimedia available for planning lesson explanation" which came second (M= 3.84), while " I tend to use the Internet in my choice of educational activities" came third (M= 3.83). "I would like to make use of the online material references when planning my lesson" came fourth (M= 3.78), followed by " I would like to take advantage of the applications provided by the Internet in preparing scientific material" which came fifth (M= 3.77), while "I feel that the educational platform is effective for children with Intellectual disabilities" came sixth (M= 3.74). Finally, "I tend to add electronic links related to the scientific subject when planning the lesson" came seventh and last (M= 3.68).

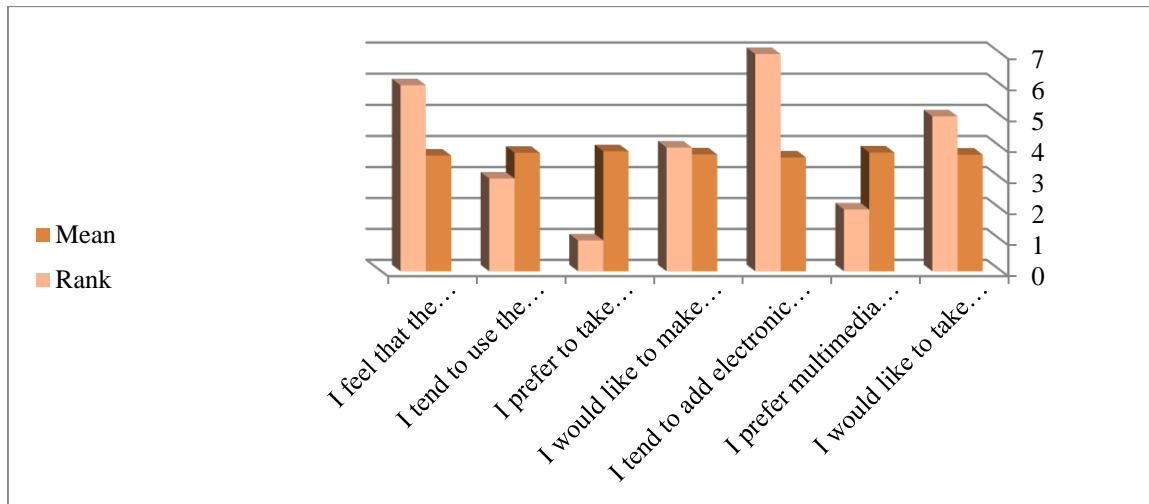


Figure 1. Mean and ranks for planning dimension.

Table 2.
Mean and ranks for planning dimension.

Item	Mean	Rank
I would like to take advantage of the applications provided by the Internet in preparing scientific material .	3.77	5
I prefer multimedia available for planning lesson explanation.	3.84	2
I tend to add electronic links related to the scientific subject when planning the lesson	3.68	7
I would like to make use of the online material references when planning my lesson	3.78	4
I prefer to take advantage of electronic innovations to develop children's skills	3.88	1
I tend to use the Internet in my choice of educational activities	3.83	3
I feel that the educational platform is effective for children with Intellectual disabilities	3.74	6

The advent of (the first dimension: lesson planning), with a high degree of response, can be explained by the desire of special education teachers to take advantage of the various technological innovations to ensure that the lesson is planned in a way that suits people with special needs in light of the circumstances related to the Corona pandemic, so the teachers are keen that the lessons meet the needs of students' knowledge, skills, and affection by making use of the platforms and websites in planning lessons and developing appropriate references for further development and including various activities to develop students' different skills.

This can be explained in light of what was indicated by Dhawan (2020) who concluded that e-learning during the outbreak of the Covid 19 pandemic provides flexibility in time and space, caring for a large number of students, easily accessing curricula and academic contents, and providing immediate feedback.

To give answer to the second question "What are the attitudes of intellectual disabled children 's teachers towards E-learning (Implementation) to teach children with intellectual disabilities during Corona pandemic?", tabular cum graphical form was used. As shown in figure 2, (See table 3.) , I prefer to use remote communication applications (such as: Google Room, Skype) to explain the material" came first (M= 3.91), followed by "I feel that my employing websites that specialize in displaying books in multimedia enables students understand scientific material" (M= 3.83). while " I prefer to use the applications provided by the e-learning platforms" came third(M= 3.81), followed by "I prefer to use the classroom to lead the discussion" (M= 3.75). " I tend to use online platforms over the internet" came fifth(M= 3.73), followed by " I would like to employ the various multimedia (recordings, videos, illustrations) provided by the online platform" (M= 3.54), while " I tend to use applications available over the internet" came last (M= 3.43).

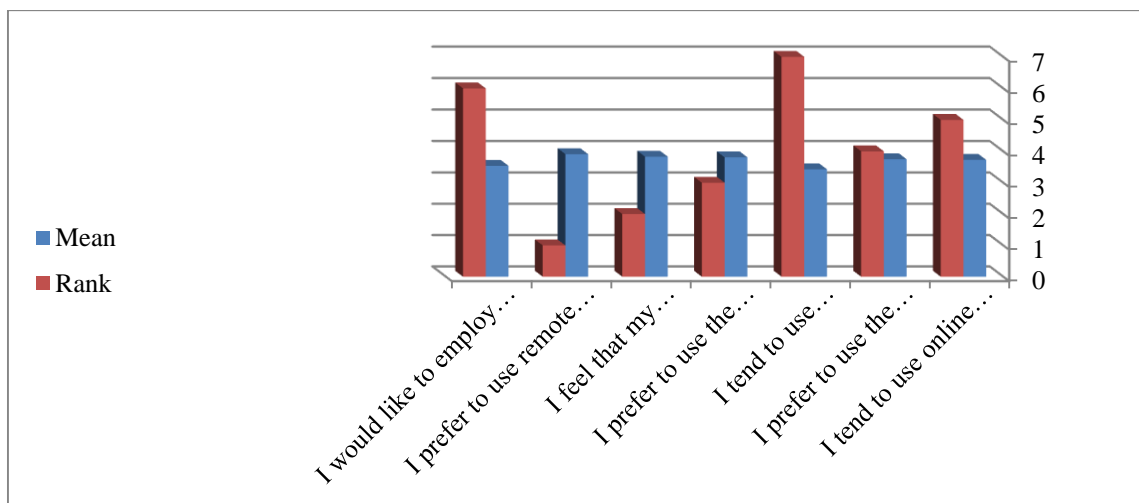


Figure 2. Mean and ranks for Implementation dimensión.

Table 3.

Mean and ranks for Implementation dimensión.

Item	Mean	Rank
I tend to use online platforms over the internet.	3.73	5
I prefer to use the classroom to lead the discussion	3.75	4
I tend to use applications available over the internet	3.43	7
I prefer to use the applications provided by the e-learning platforms	3.81	3
I feel that my employing websites that specialize in displaying books in multimedia enables students understand scientific material	3.83	2
I prefer to use remote communication applications (such as: Google Room, Skype) to explain the material	3.91	1
I would like to employ the various multimedia (recordings, videos, illustrations) provided by the online platform	3.54	6

The second dimension (lesson implementation) came with a high degree of response, and this may be due to the tendency of special education teachers to interact with their students with special needs through applications that allow students to add comments during the teacher's explanation, and to use virtual classroom applications that work on Increasing the degree of interaction between students and the teacher in light of the Corona pandemic, which contributes to increasing communication between the teacher and students effectively and enables the teacher to provide appropriate feedback to students directly. This is partly consistent with the findings of the study by Cagiltay et al. (2019), that the use of new technology helps support the teacher while teaching self-care skills, social skills, and cognitive concepts to students with special needs.

To give answer to the third question "What are the attitudes of intellectual disabled children's

teachers towards E-learning (Evaluation) to teach children with intellectual disabilities during Corona pandemic?", tabular cum graphical form was used. As shown in figure 3, (See table 4.), "I feel that the electronic testing system is more effective in detecting individual differences between students" came first (M= 3.74), followed by "I tend to do electronic tests" (M= 3.64), and "I would like to use an electronic system that allows creating a question bank" came third (M= 3.63), followed by "I tend to take advantage of electronic test correction applications in evaluating student performance" (M= 3.62), while "I want to create a periodic calendar system through the e-learning platform" came fifth (M= 3.57), followed by "I feel that using computers to analyze tests raises the level of students" (M= 3.53), and "I prefer to create a database in which he records the grades of students with moderately special needs, the changes in their levels" came last (M= 3.18).

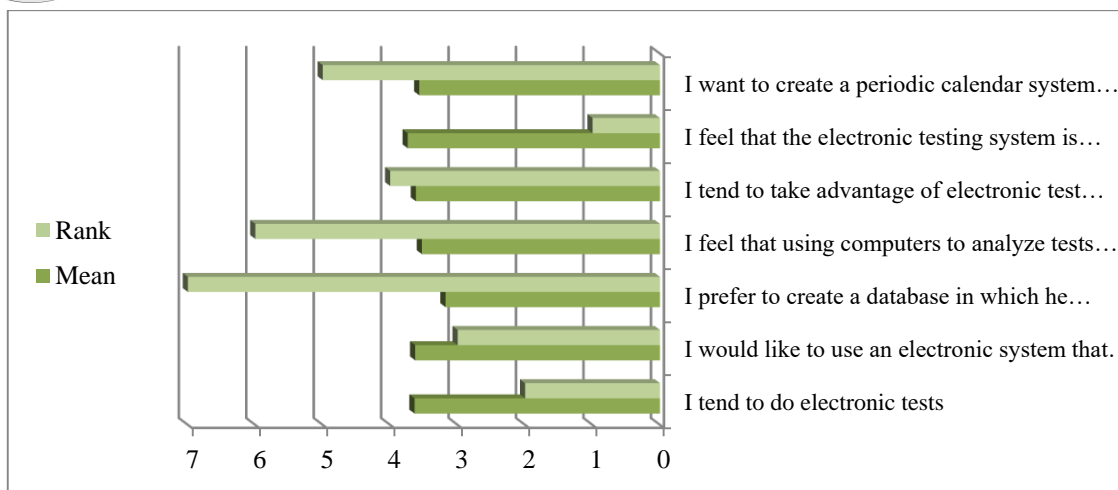


Figure 3. Mean and ranks for Evaluation dimension.

Table 4.

Mean and ranks for Evaluation dimension.

Item	Mean	Rank
I tend to do electronic tests	3.64	2
I would like to use an electronic system that allows creating a question bank	3.63	3
I prefer to create a database in which he records the grades of students with moderately special needs, the changes in their levels	3.18	7
I feel that using computers to analyze tests raises the level of students	3.53	6
I tend to take advantage of electronic test correction applications in evaluating student performance	3.62	4
I feel that the electronic testing system is more effective in detecting individual differences between students	3.74	1
I want to create a periodic calendar system through the e-learning platform	3.57	5

The third dimension (lesson evaluation) came with a high degree of response, and this can be explained by the tendency of special education teachers to take advantage of the use of distance education systems and e-learning platforms in evaluating students remotely, by quickly accessing and evaluating their answers and the possibility of employing computer technology in The speed of monitoring the students' different answers, enhancing the strengths of their performance and avoiding weaknesses in the absence of the teacher directly with them, by conducting electronic tests for them; To monitor their progress in light of the Corona pandemic. This is consistent with the study "Cagiltay et al. (2019) which indicated the existence of perceptions among special education teachers about the importance of using technology in improving the quality of educational outcomes.

Conclusion

The findings indicated that the special education teachers had a positive attitude towards the use of E-learning during Corona pandemic.

There were some limitations in this research. The data collection procedure was carried out only with the special education teachers. Therefore, in future studies, both teacher and student views about and attitudes towards E-learning and their use in education can be investigated.

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