

Sakarneh, Mohammad

## **Teachers' attitudes towards the rights of students with special education needs during the Covid-19 pandemic**

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## Teachers' Attitudes towards the Rights of Students with Special Education Needs During the Covid-19 Pandemic

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MOHAMMAD SAKARNEH<sup>1</sup>

☞ This study aims to assess teachers' attitudes toward the rights of students with special needs during the Covid-19 pandemic. The study focuses on the attitudes of the special education teachers regarding their self-efficacy and beliefs about using e-learning with their students during the Covid-19 lockdowns. It was undertaken using a quantitative research approach by which teachers working with children with special needs in Amman were interviewed virtually. The findings indicate that the teachers have positive attitudes and perceptions regarding the rights of children with disabilities, although they report having low self-esteem. They report the need to find ways of integrating e-learning for special needs children during the lockdowns. The findings indicate that teachers in Jordan have relatively negative perceptions of using e-learning platforms for teaching children with disabilities. There is a need for policies to train and support teachers in these settings to equip them with the skills to work with students with special needs using e-learning tools.

**Keywords:** Covid-19, rights, students with special needs, teachers' attitudes

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## Stališča učiteljev do pravic učencev s posebnimi potrebami med pandemijo covida-19

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≈ Namen raziskave je oceniti odnos učiteljev do pravic učencev s posebnimi potrebami med pandemijo covida-19. Študija se osredinja na stališča pedagogov glede njihove samoučinkovitosti in pogledov o uporabi spletnega učenja z njihovimi učenci med zaprtji, povzročenimi zaradi pandemije covida-19. Pri študiji smo uporabili kvantitativni raziskovalni pristop, pri čemer smo na daljavo intervjuvali učitelje, ki delajo z otroki s posebnimi potrebami, v Amanu. Izsledki nakazujejo, da imajo učitelji pozitiven odnos in predstavo glede pravic otrok s posebnimi potrebami, čeprav poročajo o nizki samopodobi. Poudarjajo potrebo po iskanju načinov vključevanja spletnega učenja za otroke s posebnimi potrebami med zaprtji. Ugotovitve kažejo, da imajo jordanski učitelji razmeroma negativne predstave o uporabi platform spletnega učenja pri poučevanju otrok s posebnimi potrebami. Tako nastaja potreba po strategijah usposabljanja in podpore učiteljem v takšnih položajih, da bi se lahko opremili z veščinami, ki bi jim služile pri delu z učenci s posebnimi potrebami z uporabo orodij spletnega učenja.

**Ključne besede:** covid-19, pravice, učenci s posebnimi potrebami, stališča učiteljev

## Introduction

Special education has received a great deal of attention throughout the world recently with policymakers making efforts to ensure that all individuals are treated equitably. Teachers working with children who have special education needs are required to adapt their teaching practices to ensure that they accommodate all children (Sakarneh & Al-Swelmyeen, 2020). The need to accommodate the learning needs of all children is a core issue that requires a hands-on approach in handling children with special education needs (Sakarneh, 2020). Many countries around the world are pursuing inclusive education by which spaces are designed in a manner that enables learning for all students irrespective of their status including the presence of disabilities (Booth & Ainscow, 2016; Sakarneh, 2019). The attitudes of the special education teachers can play a major role in determining how effectively they can respond to the special needs of the students.

With the coming of the Covid-19 pandemic that started spreading in late 2019, there was a significant shift in how things are done, including social relations. One of the main changes that faced the global community was the closure of schools and in-person instruction at all levels of education. Schools and teachers had to come up with ways of continuing to engage their students online through remote classes. This was considered a beneficial strategy for ensuring that all students continued learning despite the pandemic and the physical distancing regulations given by many governments. In theory, this was meant to ensure that students continued to learn effectively without being exposed to the virus (Van Lancker, & Parolin, 2020). Studies on the issue have been conducted, such as that of Duraku and Nagavci (2020), which have indicated that the changes have had a negative effect on the education of children with special education needs. The adverse outcomes for children with special needs that have been identified in the research include the negative emotional states associated with their isolation, lack of socialisation and changes in routine. Children with special education needs may face many difficulties in learning effectively through the e-learning platforms that have been instituted due to the pandemic (Organization for Economic Cooperation and Development (OECD), 2020; Sakarneh, 2021).

Many theories have been proposed for the design and development of learning frameworks for online settings. Some of the educational theories that are directly applicable to this issue include Kolb's learning cycle and self-regulated learning theories (Adam et al., 2017). Research on the practice of e-learning for students with special education needs has indicated that intelligent

emotional agents can provide the necessary support for students in line with learning an attention disorder; in the study by Chatzara et al. (2016), the relevance of a virtual agent in providing emotional support was evaluated. The study involved adaptation or customisation of the e-learning framework by providing customised emotional support to the students depending on their behaviour and user profiles.

According to a review by Adam et al. (2017), the application of self-regulated learning is a significant element of the online learning strategies adopted in addressing the needs of students. Self-regulated learning involves the application of self-directive processes for transforming the mental capabilities of individuals into academic skills. In this case, the learner is in control of his motivational, metacognitive, and behavioural aspects of learning since there is no direct supervision. E-learning involves individuals having personal responsibility and control over the acquisition of knowledge and skills.

Studies on how children with special education needs learn on online platforms have been undertaken in different settings. Some of the key challenges identified as affecting children with learning disabilities include learning challenges such as difficulties remembering what has been learned. For example, they may have letter and number reversal, inconsistent school performance or inconsistent reading skills and poor reading performance. To address these issues, special needs education involves different interventions such as individualised learning using components that are specific to the specific disabilities of the student (Pirani et al., 2013). The aim of these interventions is to provide a rich learning environment where multimedia tools are used to improve academic performance. Additionally, remediation is provided as a strategy for practice and guided instruction to aid struggling learners.

For learning with special education needs, the use of online systems has been evaluated in studies, such as that of Sanchez-Gordon & Luján-Mora (2017), indicating the accessibility of MOOCs for persons with cognitive impairments. An interesting element in the review was that most of the studies focus on sensory-impaired learners but ignore the needs of those with cognitive impairments. A participatory design process is necessary for the user-centred educational tools adopted for learners with special needs in online settings to enable them to interact with the element in the learning modules.

While access to education and lack of discrimination are cited as fundamental human rights for children with disabilities, ensuring their achievement in the time of the Covid-19 pandemic has not been easy. Some of the critical challenges include a lack of coordination and effective policies as well as resources. Inclusiveness for children with special education needs is negatively

affected by issues, such as inadequate teacher training, lack of support, negative attitudes, and challenges in curriculum and pedagogy (Sakarneh, 2020). When learners with special education needs must be taught through online platforms, the challenges are exacerbated by inconsistencies between the online materials and curriculum as well as the willingness of parents and teachers to provide the necessary support. A major issue has been that teachers do not have a clear idea of what the least restrictive learning environment for inclusive learning is on online platforms (Burdette et al., 2013). The centre for online learning also reports that online learning is not presented as a key part of the formal training for special needs teachers. This leaves the teachers ill-equipped to handle the needs of the students and may result in negative attitudes (Rice & Mellard, 2016).

The attitudes of teachers regarding students with special needs are important because they influence their views regarding the capacity of the students to learn. Positive teacher attitudes have been identified as a key issue in determining how welcoming teachers are to students with diverse needs. Studies such as that of the European Agency for Development in Special Needs Education (EADSNE, 2012) indicate that positive teacher attitudes influence inclusion towards learners with special education needs. The impact of the attitudes results in variations in their willingness to respond effectively and positively to the differences. The attitudes influence the views that teachers have about children with special education needs and how well they can utilise the available resources to improve their outcomes. The availability of resources is not sufficient to determine the outcomes since the teachers must utilise them in their work and this is mitigated by their attitudes. The teacher's attitudes can be considered one of the most important ways of ensuring that children with special education needs achieve educational goals (Saloviita, 2020).

### *Inclusive Education System in Jordan*

The Jordanian educational system has gone through several stages of educational development since the Education Reform Law (ERL) of 1952; the next reform in the law was in 1964 (Abbas, 2012; Al Jabery & Zumberg, 2008; Benson, 2020). Drawing on the Jordanian constitution and national values, the 1964 law was meant to create an inclusive school system (Abbas, 2012; Al Jabery & Zumberg, 2008; Benson, 2020). The most momentous change was the first National Conference on Education Reform (NCER) in 1987 (Ministry of Education (MoE), 1988). The conference was held under the patronage of the late King Hussein and led by Crown Prince Hassan (MoE, 1988). In 2002, the MoE launched the future vision for education in Jordan, presented at the 'Vision

Forum for the Future of Education in Jordan' held in Amman, September 15–16, 2002 (MoE, 2002).

Jordan, like other countries, has invested most of its efforts in education reform in all its fields, and that was through a series of national reform conferences that brought together educational leaders and stakeholders from all disciplines, which concluded with several recommendations in all aspects of education (Sakarneh, 2015). Part of this comprehensive educational reform movement was on the subject of special education. The MoE worked hard to provide students with special needs most of its attention by establishing a special administration that takes care of their affairs to include them fully in the school community. It has been done as a response and application of the text of the Jordanian constitution and the rights of individuals with special education needs (The Higher Council for the Affairs of Persons with Disabilities (HCD), 2017; Mahases, 2018). Many countries, including Jordan, have committed themselves to the texts of conventions and recommendations of international conferences regarding the full integration of individuals with special needs, including the UNESCO World Declaration on the concept of Education for All in 1990. Furthermore, the Salamanca Statement and the Framework for Action for Education for People with Special Needs in 1994 and the Dakar Conference in 2000, as well as the Convention on the Rights of Persons with Disabilities that was adopted in 2006 and the international educational literature in this field (Alkhateeb et al., 2016). Most recently, the Law on the Rights of Persons with Disabilities No. 20 in 2017 was approved, as it addressed multiple facets of full inclusion in daily living for persons with special education needs (Benson, 2020; HCD, 2017). However, some phrases and words in the law remain unclear and ambiguous and difficult to apply, such as 'lack of reasonable accommodations', leaving it to numerous bureaucracies to determine what is reasonable, which eventually leads to unclear assumptions about the rights of advocates and parents (Benson, 2020; HCD, 2017). The inclusion of students with special education needs remains under the authority of MoE and is supported by HCD and also other bodies of authorities providing services regarding the needs of students with these needs, such as the Ministry of Health (MoH) and the Ministry of Social Development (MoSD) (Benson, 2020; HCD, 2017). Regardless of the rhetoric of community and government support for inclusion, it is still partially hindered at the practical level and has not been seen fully clear in the Jordanian schools, where also there is restricted parental and other stakeholders' participation at all levels regarding inclusion (Abbas, 2012; Abu-Hamour & Al-Hmouz, 2014; Benson, 2020; Sakarneh, 2014). In this regard, the literature revealed some barriers to the inclusion system in Jordan: 'lack of consistent

funding, coordination between ministries, no clear standards or benchmarks for teachers or students' (Benson, 2020, p. 111) and other contextual, social, and educational barriers (Abu-Hamour & Al-Hmouz, 2014; Sakarneh, 2020). Nevertheless, the MoE took serious and practical measures regarding the integration of these students when the number of partially integrated students with different special education needs reached 1,008 students in 150 inclusive schools at the end of 2018 (Mahases, 2018). The 2015 General Population and Housing Census indicated that around 11% of the total population in Jordan aged 5 and above have disabilities and only 1.9% of them enrolled in primary education, which means that the vast majority of the children of school age with special education needs are totally excluded from the opportunities of education (Department of Statistics (DoS), 2015; MoE, 2020).

Recently, the MoE in collaboration with HCD and based on the text of Article (18/ h) of the Law on the Rights of Persons with Disabilities (20) of the Year 2017, launched a ten-year strategy for inclusive education (2020–2030); the goal is to ensure that the access for individuals with special education needs to educational services and programs are built on an equal basis with others through developing the capacity of the educational stakeholders, adapting accessible curricula, and ensuring that school buildings and facilities are accessible for all (MoE, 2020).

### *The lockdown Response*

The outbreak of the Corona virus pandemic forced countries around the world to close schools, affecting 103 million students across the Middle East and North Africa region (MENA). In mid-March, 2020, Jordan was one of the first countries in the region to respond to the crisis by imposing a curfew and closing all educational institutions across the kingdom. To sustain learning during the pandemic, the MoE resorted to distance learning tools, as officials were quick to take advantage of the materials available in the private sector to develop an educational platform called 'Darsak' 'Your Lesson', and other platforms such as 'Edraak', 'Jo Academy', and 'Abwab' as well as two television channels dedicated to providing online lectures (Azzi-Huck et al., 2020). These resources covered the core subjects of the curriculum, which are Arabic, English, Mathematics, and Science from the first year of primary school to the third year of secondary school. In addition, the Jordanian Sports TV channel was reconfigured to broadcast educational programs specifically designed for students preparing to take the 'Tawjihi' high school exam. The MoE has also supported teachers by implementing new interventions to facilitate the transition to distance learning. A newly launched teacher training platform that offers training courses on



distance learning tools, blended learning, and educational technology (Azzi-Huck et al., 2020).

In Jordan, more than 16% of students lack access to the Internet, which is 16 percentage points lower than the OECD's average: a third of them do not have a computer that can be used for homework, which is 25 percentage points lower than the OECD average. This digital divide is often found in low-income families; Less than 30% of students of lower economic status have a computer for homework, and only about 50% have access to the Internet. This has not been easy to alleviate (Azzi-Huck et al., 2020). In Jordan, telecom infrastructure is inconsistent. Most students still do not have laptops, tablets, or smartphones available for learning. Additional, teachers who have not had time to familiarise themselves with the new teaching technology are now creating curricula and structuring distant classes. 'They are finding it difficult to engage and assess students remotely. The learning environment has shifted for parents, as well, many of whom were deputised overnight as homeschoolers in systems with which they may not be familiar' (Azzi-Huck et al., 2020, p. 1).

The British Council (BC) in Amman convened a webinar about an inclusive education plan during Covid-19 lockdowns. The participants shared the challenges faced by Special Educational Needs and Disabilities students in Jordan as a result of lockdown and solutions for that. It was reported that there were 21,000 students with different special education needs in 2020/2021 school year but there are different types of challenges, such integration; although there is collaboration between the MoE and the HCD and Non-Governmental Organizations (NGOs), 'in implementing the 10-Year Strategy for Inclusive Education (2020–2030), the challenges faced and the Ministry's interventions and support to overcome those challenges by activating distance education and filming the curriculum lessons that the MoE developed for students with [Special Educational Needs and Disabilities] including sign language and audio' (British Council [BC], 2020, p. 2). The response to these challenges were: intervention through 'E-learning programmes by producing 2300 filmed videos [...] for students with visual impairment [...] also provide counselling and support services to families with intellectual disability students [...] in addition, they created a YouTube channel that includes 200 movies dedicated to children with intellectual disabilities and autistic disorder' (BC, 2020, p. 3).

A short report prepared by UNICEF indicated that during the COVID-19 pandemic the MoE with cooperating with international organisations (e.g., UNICEF) made significant strides toward supporting students with special education needs within a short period. They established a communication network during the lockdown between teacher, schools, special education

teachers, students, and parents (BC, 2020). UNICEF 'has provided disability inclusive workbooks [that] have been designed considering each student's individual education plan [...] [and organising visits] conducted by two shadow teachers at a time, one that supports therapy and the other in support of learning. Nearly 700 children with disabilities are being served in Azraq and Za'atari refugee camps through this modality' (UNICEF, 2022, p. 3).

A study conducted by Abu-Rabba' et al. (2021) aimed to investigate the level of usage of online learning in kindergartens in Jordan during the Covid-19 pandemic from the point of view of the teachers. The results showed that the usage of 'online learning in kindergartens during the covid-19 pandemic from a teachers' point of view were moderate and it also showed statistical differences in the level of utilisation of online learning attributed to the type of school in favor of private schools'.

Based on the literature and the situation in most countries where the needs of children with special needs are not effectively addressed, it is apparent that teachers can be a critical part of the process (Sakarneh et al., 2019). The critical issue is that the teacher attitudes towards e-learning for children with special needs in Jordan needs to be understood for effective formulation of policies and possible solutions. The experience of the teachers in using e-learning platforms and those with practical working experience in providing inclusive education for children with disabilities in Jordan were considered in the sampling and selection of participants for the study. The views of special education teachers on the use of technology in addressing the needs of special students during the Covid-19 pandemic need to be investigated to identify how it can be enhanced. This study seeks to evaluate how teaching of children with special needs through e-learning platforms takes place in Jordan. It has also been identified that the attitudes of teachers can significantly influence the strategies they adopt in helping children with special needs to learn (Burdette et al., 2013).

The research questions to be addressed in this study are:

- What are the attitudes of special education teachers in Jordan towards the rights of students with special needs during the Covid-19 pandemic?
- What are the views of teachers about the effectiveness of e-learning for special needs children in Jordan during the Covid-19 pandemic?
- Are there any significant statistical differences in relation to teachers' attitudes due to gender and experience?

## Method

The study applies a quantitative methodology for the assessment of the teachers' attitudes towards the rights of students with special needs during the Covid-19 pandemic. A survey approach was applied by sampling special education teachers in Jordan and evaluating their views. Teacher attitude was the dependent variable while the independent variables were gender, qualifications, years of experience, and age of the teachers.

The participants selected for this research were special education teachers working in different schools and kindergartens for children with disabilities and special education needs. The aim of the study was to obtain a sample of teachers who are experienced in dealing with children who have special learning needs. The teachers were sought from different primary schools in the city of Amman. Using the government registry, all teachers working with children who have special learning needs and disabilities were identified and invited to participate in the study. It was necessary to find the teachers who were experienced in working with children who have learning disabilities. The type of disability was not considered in the assessment with the teachers being simply selected on the basis of their training and experience in teaching children who have learning disabilities.

The main instrument in this study was a survey questionnaire that was used for collecting the data from the respondents. The questionnaire consisted of two elements: demographic characteristics of the teachers and the teachers' attitudes scale. The two elements were critical to the achievement of the research objectives because they would help in understanding the key characteristics of the teachers and evaluating their perceptions and attitudes regarding the students they teach.

The teacher's attitudes scale was selected for the study because it has been developed and tested in other studies (Cullen et al., 2010). The teacher attitudes towards inclusion scale (TATIS) instrument is appropriate as a tool for assessing the attitudes of teachers towards different issues in their classes. It was selected for the study because it evaluates the self-efficacy of teachers as well as their roles and responsibilities in relation to inclusion of students with disabilities. To make it appropriate for assessing the issue of e-learning for these students, the instrument (a scale) was adapted to focus specifically on the beliefs and perceptions of teachers about the rights of students with special needs and e-learning process for them during the Covid-19 pandemic.

The teachers' attitudes scale is applicable in the assessment of the perceptions that teachers have towards the rights of students with special needs

and the use of e-learning. The validity of the measure was based on the effectiveness and applicability of the measures as they have been applied in prior studies for assessing the attitudes of teachers towards working with inclusive classrooms and disabled children (Cullen et al., 2010; Yada & Savolainen, 2017).

Some of the key ethical issues considered in the study included the assessment of the views of teachers towards children with disabilities. The views of teachers are personal opinions that must be treated with confidentiality. Teachers express their views regarding their teaching practices and working with the special needs children and expect that the information will be handled confidentially. The ideas expressed in the research are those of the teachers and should not be used against them professionally. Another ethical consideration in the research was the need to ensure that the findings would be used to improve the outcomes of the sector and the education of children with special needs.

Collection of the data was undertaken using the survey questionnaire. For ease of distribution and supply of the questionnaire to the relevant participants, it was prepared using Google Forms and distributed online using a link that was sent to the emails of the selected participants. This format allowed easy completion of the form to ensure that the participants could easily answer the set questions and provide the necessary feedback through the online channel. The questionnaire consisted of 10 questions in the demographic information section and another 14 items for measuring the teacher attitudes towards inclusion of students with disabilities in e-learning platforms. The collection of the data was done over a period of two weeks with each being expected to take about 25–45 minutes to complete.

Analysis of the collected data from the study involved cleaning of the data to ensure that it was complete and consistent. The analysis of the data was done using the Statistics Program for Social Sciences (SPSS) version 22 as the tool for the statistical analysis. This software was applied due to its power in undertaking statistical analysis and effectiveness in providing both descriptive and inferential statistics. The analysis of the data using SPSS was also appropriate for the objectives of the study using a quantitative approach. The data were collected over a period of two weeks; since they were collected using an online form, they were easy to transfer to a Microsoft Excel spreadsheet to check for completeness and missing data before the analysis would be undertaken. The online form was distributed to the sampled teachers via email, which also contained an informed consent form. The research participants were expected to complete the informed consent form after reading the information sheet for the study. After completing the informed consent form and submitting it, the survey became available to them via the invite link, which allowed them to access and complete it.

Results

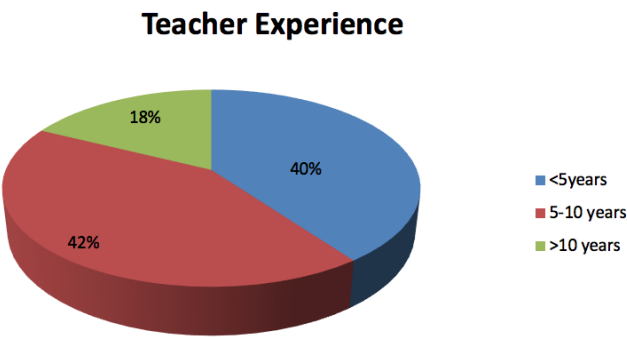
Descriptive statistics for the sample are shown in Table 1. In terms of gender, the sample of teachers consisted of 38.8% males while the other 61.2% were women. The researcher explains the difference between the ratio of males and females is that the males are reluctant to work in the sector of special education more than the females are.

**Table 1**  
*Demographic characteristics of the study sample*

Gender	Number	Percent
Male	33	38.8%
Female	52	61.2%
Total	85	100.0%

In terms of experience, as shown in Figure 1, the sample of teachers mostly had been in service for less than 10 years; 40% had experience of less than 5 years while 42% reported having 5–10 years of experience and 18% had more than 10 years of experience.

**Figure 1**  
*Teachers’ experience*



Teachers involved in the education of children with special education needs require special training to ensure they have the necessary skills. In this case, the findings indicate that about a third (32.9%) of the teachers did not have formal special education training. This means they may have learned how to deal with special needs children over the course of their practice. The education

levels of the teachers differed considerably, with some having certificates while others were qualified with postgraduate and undergraduate degrees. Most of the sampled teachers had certificates and diplomas in special education with only 7% having postgraduate degrees in education.

The scores for the attitudes of the teachers towards e-learning for children with disabilities were evaluated using different dimensions of the attitudes. The dimensions of self-efficacy, beliefs, and attitudes towards inclusive learning in online platforms were considered in the study. The findings indicate that teacher attitudes towards e-learning for children with special education needs are relatively neutral in terms of self-efficacy. The average scores and variances of the dimensions of the attitudes towards e-learning for students with special education needs are shown in Table 2.

**Table 2**

*Means and standard deviations of the attitudes scale's dimensions*

Dimension	Mean	Std. Deviation
Attitudes towards students with disabilities in inclusive settings	34.5	1.83
Beliefs about efficacy of inclusion	16.5	.92
Beliefs about professional roles and responsibilities	22.3	3.17

As shown in Table 2, the scores indicate that the beliefs of teachers about the general rights of students with special needs to be educated scored highly. The average score on the professional roles and responsibility of the teachers was 22.3,  $SD = 3.17$ . The teachers reported that they strongly believed that the students with special education needs had a right to be provided with the right education and opportunities to learn despite the pandemic and the resulting lockdowns.

Regarding the self-efficacy of the teachers in delivering the required learning to the students through the e-learning platforms, as can be seen in Table 2, the results indicate a relatively low result of 16.5,  $SD = .92$ . This indicates that the teachers had relatively low attitudes about their capacity to handle special need children and to teach them effectively using e-learning tools. This means the teachers have negative perceptions about their skills or the capacity available to them through the resources they have from the e-learning platforms available to them (Rice & Mellard, 2016).

On the inclusive learning dimension, the average score for the teachers was 34.5,  $SD = 1.83$ . This indicates that the teachers had highly positive attitudes towards inclusive learning being possible and effective for learners through the e-learning platforms. Looking at the three dimensions together, it is clear that

the area in need of the most attention is how to improve the self-efficacy of the teachers by giving them the necessary training and resources to accomplish e-learning for children with special education needs.

Further analysis of the attitudes was undertaken in relation to teacher characteristics in terms of gender and experience level. For teacher gender, the differences in the performance of the teachers were evaluated using the independent samples t-test; the test also involved comparison of the mean TATIS scores for the respondents in relation to their gender, as shown in Table 3.

**Table 3**  
*TATIS scores for the respondents in relation to gender*

	Gender	N	M	SD	t	df	Sig.
TATIS Total Raw Score	Male	33	44.94	15.11	-1.75	970	.081
	Female	52	43.2	14.93			

As can be seen in Table 3, the total raw score for the teacher attitudes was evaluated using the independent samples test, which indicated that the male teachers had a slightly higher mean score of 44.94 compared to that of female teachers at 43.62. The independent samples test for the two groups indicates that the t-score was -1.75 with a p-value of .081. These statistics mean that the two samples were not significantly different; it can be argued that the male and female teachers do not vary significantly in terms of their attitudes towards inclusivity of children with special education needs. Both male and female teachers have over 85% in their ranking of how positively they perceive the education of children with special needs during the Covid-19 pandemic.

For the experience level of the teachers, the one-way ANOVA method was used for comparison of the means, as shown in Table 4. This was applied because the sample consisted of teachers with three levels of experience: below 5 years, 5–10 years, and over 10 years.

**Table 4**  
*Comparison of the means using One-Way ANOVA method: TATIS total raw score*

	Sum of Squares	Degrees of freedom	Mean Square	F	Sig.
Between groups	2473.22	2	1236.65	22.57	.000
Within groups	64204.11	84	764.34		
Total	66747.33	86			

As can be seen in Table 4, the results of the one-way analysis of variance indicate that there are significant differences within and between the three groups. The statistic of 22.564 with a p-value of .000 indicates that the groups differ significantly. A post-hoc test was undertaken to identify whether there are homogenous sets in the group, as shown in Table 5.

**Table 5**

*Post-hoc tests for homogenous subsets: TATIS total raw Score*

Teacher experience	N	Subset for alpha = 0.05	
		1	2
<5 years	34	45.1	
5-10 years	35		43.94
>10 years	16		44.22

It can be noted in Table 5 that the results indicate that the group of teachers with less than five years of experience had a relatively higher mean raw score than the other two groups did. The group with five to ten years of experience and the group with over ten years of experience are presented as homogenous subsets, meaning they have relatively similar attitudes. The researcher would like to explain that the inequality of the teachers' gender refers to the availability of teachers who were willing to participate and met the criteria of the study.

## Discussion

The results of the analysis indicate that most special needs teachers in Amman have the necessary training in special needs education to enable them to handle their students effectively. Some of the critical challenges that can be identified in the assessment of the attitudes that the teachers have in providing e-learning opportunities for special needs children in Jordan include the fact that some of them do not have formal training. Additionally, some of the teachers have low experience and academic qualifications that contribute heavily to their low self-efficacy. These findings are in line with those of Ahmmed et al. (2014) who reported that teachers with higher qualifications have more positive attitudes towards inclusive learning. Regarding e-learning platforms and their use in teaching special needs children, the findings are in line with those of Bonal and Gonzalez (2020) who argued that the pandemic has contributed negatively to the learning gap.



The pandemic has made it difficult for teachers to provide the necessary learning in line with the needs of disabled students. In the case of Jordan, support for e-learning to special needs students is relatively low and many teachers feel that they do not have what they need to make their work possible. The attitudes of teachers especially in relation to their self-efficacy and the provision of inclusive learning indicate that there is a need for policy makers to address gaps in the provision of the necessary resources in adapting e-learning to the needs of disabled children. The attitudes of teachers are positive in terms of the belief that children with special education needs should not be discriminated against when considering the continuation of education at home through e-learning platforms.

Differences in the overall attitudes of the teachers towards children with special education needs were shown to be relatively similar irrespective of teacher gender. The male and female teachers had similarly positive attitudes towards children with special education needs. However, teacher experience is presented as a key factor influencing their attitudes toward children with special education needs. Those with very low experience (below five years) had significantly different attitudes that were substantially lower than their colleagues with more experience.

## Conclusions

The findings imply that there is a need for the identification of the weaknesses adversely affecting the provision of learning through electronic platforms for disabled students. These students have more needs for adaptation than others and they require more attention from the teachers than their counterparts do. As a result, these students need learning platforms that are more adaptive and capable of addressing their unique needs. This is difficult to achieve with e-learning because it also lacks the necessary capacities and skills on the part of teachers. The attitudes of the special education teachers regarding the applicability of e-learning for their students during the Covid-19 pandemic indicate that they consider them to be applicable in addressing the needs of the students and ensuring that their rights are not ignored due to the current situation of schools' closure (Bonal & González, 2020).

The effectiveness of these measures has been questioned with most teachers feeling that they do not have the necessary capacity or skills to address the needs of special education students at home through e-learning. These findings imply that the government needs to develop strategies to improve the training of special education teachers and integrate technology into their

practices. Policymakers should also focus on developing appropriate frameworks for providing the necessary resources to the teachers to help them work effectively with the special needs students during the pandemic.

The findings of this study are applicable in understanding how teachers perceive students with special needs in their classes. Specifically, the present research shows how teachers in Jordan responded to educating children with special needs during the Covid-19 pandemic. The findings of this study contribute to the training of special education teachers in Jordan and the identification of the specific areas for the ministry to consider. The study shows the skills gaps for teachers of special needs children in Jordan and the resources they need to improve their capacity.

However, the results of this study are limited to the circumstances and settings in which it was conducted and cannot be generalised unless the same circumstances and settings are employed, specifically the method, sample, study tool, and data collection and analysis.

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