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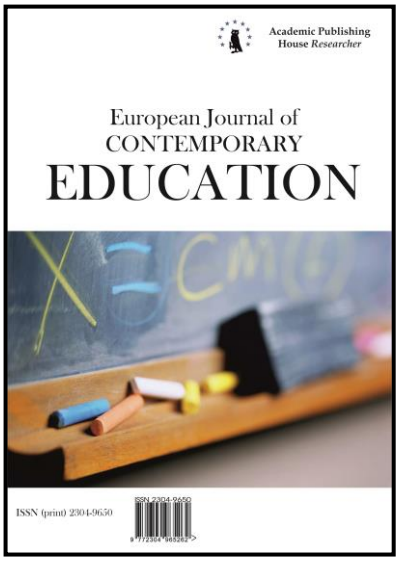

Kindergarten Teachers' Views of Assistive Technology Use in the Education of Children with Disabilities in Qatar

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Abstract

This study aimed at revealing the opinions of kindergarten teachers in Qatar regarding the use of assistive technology (AT) in educating children with disabilities. In this study, the researchers used the descriptive method (survey) in order to collect, classify, analyze, and interpret the collected data. The sample of the study consisted of (83) female teachers from public kindergartens in Qatar. This sample was selected using the stratified random sampling method during the academic year of 2018/2019. The researchers developed a study instrument (questionnaire) to measure the opinions of kindergarten teachers in Qatar regarding using AT in teaching children with disabilities. The validity and reliability of the research instrument were checked. The study showed that the use of AT by public kindergarten teachers in teaching children with disabilities was high. In addition, the results revealed that there are no statistically significant differences attributed to the variables of experience and specialization. In light of the results of the study, researchers recommend that kindergarten teachers should sustain the use of AT in teaching children with disabilities. Furthermore, choosing a variety of AT tools that suit the varied needs of children with disabilities is recommended.

Keywords: assistive technology, use of assistive technology, kindergarten teachers, education of children with disabilities, Qatar.

1. Introduction

Individuals and communities around the world are increasly getting interested in learning more about technology uses. Possessing technology related skills has a noticeable impact on individuals. Consequently, technology skills are considered among the main required skills in the

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21st century (Robinson-Zañartu et al., 2015). There is no doubt that the technology has great benefits in the different stages of education; starting from early childhood till graduate studies.

The diversity of technological tools at the present time and taking into account the needs and interests of individuals of all segments of society, drew attention to the role that technology can play to support special education in general and to serve students with disabilities in particular. For this, assistive technology has provided services attested in the special education sector at all levels of global, regional and local levels.

Children with disabilities need more effective teaching methods that enhance their learning. So, using technology can change the traditional pattern of teaching followed by many teachers who focus on memorization and indoctrination patterns. Continuing to follow the traditional patterns of education neglects many of the interests and needs of children, and confines their role as learners to receive information from the teacher. Due to the entry of technological changes and information revolution in the educational field in general and education for children with disabilities in particular, teachers started the integrating technology in their teaching practices. As a result, the latest methods, strategies and teaching aids were introduced to contribute in improving learning and teaching processes, achieving learning outcomes, and enabling children to learn in a stimulating learning environment supported by assistive technology tools.

IDEIA (2004) defines assistive technology as any device, equipment, software, or product system that is used to maintain or improve the functional capabilities of people with disabilities (Floyd et al., 2008). That is, assistive technology is not concerned only with the provision of a commercial, developed, or modified product or devices in order to increase or improve the functional capacities of individuals with disabilities, but it concerned also to enable them to choose and use assistive technology in their active learning.

Technology devices and tools in general, including assistive devices and tools in particular, can be low-tech or high-tech to address the functional capacities of children with disabilities (Parette et al., 2009). These devices include: 1) learning aids such as calculators, spellcheckers, and computer-based programs (Lyons, Tredwell, 2015) that help children with disabilities to accomplish learning tasks and activities; 2) hearing aids such as amplifiers and alarm systems for children with hearing impairment or deafness, and enhanced communication devices that enable children with hearing disabilities to communicate with others in terms of self-expression and understanding of others (Georgia Department of Education, 2019), and 3) computer peripherals such as input/output devices, alternative access devices, modified or alternative keyboards, special software, and other hardware and software solutions that enable children with disabilities to use computers in the classroom (Floyd et al., 2008; Lyons, Tredwell, 2015).

Several studies have highlighted the most important devices used by children with disabilities. For example, Beck (2002) found that children with multiple disabilities use dialing codes for images and adapted books. In addition, Hutinger et al. (2006) discussed how children with disabilities use software to complete learning activities. Further, Marsh (2004) found that television, film, computer games, and mobile are used as tools to improve learning of children with disabilities. Furthermore, digital technologies such as tablets are used by children with disabilities to enhance their learning (Papadakis et al., 2018; Schacter, Jo, 2017).

Despite of the diversity in assistive technology, teachers need to realize that children with disabilities are different individuals and each one has his/her own individual needs. Therefore, the main challenge for teachers is to harmonize the abilities of children with disabilities with appropriate assistive software, devices, and tools (Alharbi, Drew, 2014). Furthermore, it is a challenge for teachers to help children choose the appropriate technological tools and devices. In addition, teachers are required to provide many services for children with disabilities, including assessing their needs and helping them to accomplish the tasks required, as well as selecting and adapting devices to their needs, and helping them and their parents to deal with these devices and tools (Disability Rights Washington, 2018; Parette et al., 2009).

Regardless all of the mentioned challenges, the use of assistive technology helps the growth and development of children with disabilities in many aspects. Simon et al. (2013) have shown that teachers who use technology in children's classrooms have a clear positive impact on their motivation and enjoyment while learning. In addition, using technology could help children to achieve learning outcomes more effectively, to build new concepts, and to develop significant skills.

Teachers emphasize that integrating technology into learning process (McManis, Gunnewig, 2012) gives children the opportunity to master their writing and reading skills (Primavera et al., 2001; Nir-Gal, Klein, 2004), increase the mathematical concepts (Primavera et al., 2001), vocabulary acquisition, and phonological awareness while using tablets (Chiong, Shuler, 2010; Couse, Chen, 2010; Nam et al., 2013).

Assistive technology also helps children with disabilities to enhance the self-confidence and self-esteem, to develop language and communication skills, and to help them become active learners (Floyd et al., 2008). It also enables them to be more independent in accomplishing academic tasks, participating in classroom discussions and activities, and working with peers without hindrance (Burgstahler, 2003). Parette et al. (2009) found that assistive technology enhances the lives of children with disabilities and promotes social integration. On the other hand, this technology can be used as a way to overcome learning difficulty, reduce frustration, increase the sense of peer acceptance, and improve productivity at school and home (Adebisi et al., 2015). Okolo and Diedrich (2014) demonstated that technologies have a positive impact on academic progress of children, emotional development and behavioral goals. Siyam (2018) asserted that technology could improve communication and sharing information with all those involved in the education of children with disabilities, including parents, to achieve students' learning outcomes.

To realize the benefits of using assistive technology in teaching children with disabilities, teachers are required to have knowledge about assistive technology devices and tools and how to use them in their learning environment. Teo (2011) and Siyam (2019) asserted that teachers are more involved than others in the application and implementation of effective integration of assistive technology in the learning and teaching processes. That is, teachers' ability, confidence, and understanding of the importance of assistive technologies are influential in encouraging the use of them in the students' learning environment (Hutinger et al., 2006).

1.2. Previous and Related Studies

Several studies have attempted to explore teacher practices regarding the use of assistive technology in the classroom environment. For example, Anagnostou (2015) revealed that primary school teachers use technology in the classroom to help children with reading and writing problems. Cardon et al. (2011) also illustrated how caregivers look at children with ASD during their daily routine activities and how assistive technology contributes to improving children's learning. In addition, they illustrated that less than half of those teaches were unable to master the use of assistive technology, and their actual use was low.

Myrtil et al. (2018) found that kindergarten teachers were able to integrate assistive technology, and there were no variables that prevented efficient use of technology. However, Hutinger et al. (2006) demonstrated that teachers need training and technical support to employ assistive technology in the learning environment. In addition, Al-Qahtani (2013) revealed in his study that teachers' knowledge and assistive technological skills were inadequate.

As a result, it is necessary to know the views of teachers and their awareness of the importance of integrating technology in special education and to support children with disabilities (Baglama et al., 2017). In addition, it is crucial to ensure that teachers are actively using assistive technology based on The Individuals with Disabilities Education (IDEIA, 2004a) that calls for technology to be taken into account in the education of all children who have an Individualized Education Program (IEP), and those who need technology in order to obtain free appropriate public education (FAPE). Therefore, the effective use of assistive technology is required in many countries (Ajuwon, Chitiyo, 2016), including Qatar. However, this study is considered as the first study that examined the extent to which kindergarten teachers in Qatar use assistive technology in the education of children with disabilities.

The State of Qatar was one of the first countries that ratified the Convention on the Rights of Persons with Disabilities in 2008, and then went a long way towards achieving and consolidating the principles and foundations of the Qatar National Vision 2030, including equality and justice for all sectors of society and persons with disabilities (United Nations, 2014). In addition, the State of Qatar has made efforts to promote persons with disabilities by discussing their rights and issues in detail in relevant legislation and laws, and by providing resources for implementation at the executive level in various areas (United Nations, 2014). In response to item 9 of the Convention on the Rights of Persons with Disabilities, which affirms that children should be enabled to live

independently and participate fully in all aspects of life, in June 2010 the Ministry of Transport and Communications established the "Mada Center" for Assistive Technology as a non-profit organization (Minister of Transport and Communications, 2019). Mada's strategic plan focuses on the use of technology to improve the quality of life of people with disabilities in Qatar. The plan included five objectives related to the following aspects: education, accessibility in work environments, promotion of independence, health and safety, and quality of life (Minister of Transport and Communications, 2019).

The effort and plans of the institutions in Qatar, that are working with people with disabilities, are based on periodically accurate survey data, such as the Disability Model Survey carried out by the Planning and Statistics Authority 2017 in collaboration with Mada and WHO. The State of Qatar is keen to continue to implement its commitment to the Convention on the Rights of Persons with Disabilities and their empowerment and integration at the national and international levels (Al Thani, 2019).

1.3. Study Problem and Questions

There are several research studies, such as Hutinger et al. (2006) and Alkahtani (2013), revealed that teachers need training and technical support to employ assistive technology in the learning environment. In addition, they revealed that teachers' knowledge and assistive technological skills were inadequate. However, The State of Qatar ratified the Convention on the Rights of Persons with Disabilities. It seeks to achieve the foundations of the Qatar National Vision 2030, including equality and justice for all persons with disabilities (United Nations, 2014). Based on the increasing attention paid by the State of Qatar to improve the services provided to children with disabilities, and to realize the extent to which the objectives of this convention and vision have been achieved in the teaching and learning of children with disabilities, this study came to explore the opinions of kindergarten teachers in Qatar regarding the use of assistive technology in educating children with disabilities. This research study attempted to answer the following questions:

1. What is the extent to which kindergarten teachers in Qatar use assistive technology in the education of children with disabilities?
2. Are there significant differences at the level of significance ($\alpha = 0.05$) in the degree to which kindergarten teachers in Qatar use assistive technology in the education of children with disabilities, due to experience and specialization variables?

1.4. Study Objectives

This study aims to: 1) identify the degree to which kindergarten teachers in Qatar use assistive technology in the education of children with disabilities, 2) identify the impact of expertise and specialization variables on the use of assistive technology in the education of children with disabilities as perceived by kindergarten teachers in Qatar.

1.5. Study Importance

This study sheds light on the role of kindergarten teachers in Qatar in the use of assistive technology in the education of children with disabilities. The kindergarten stage is considered as one of the most important stages of study, where teachers need to facilitate learning, improve performance, and achieve the desired learning objectives. In addition, this study provides a theoretical framework on the views of kindergarten teachers in Qatar regarding the use of assistive technology in the education of children with disabilities. Further, this study is one of the few recent studies that examine the opinions of kindergarten teachers in Qatar regarding the use of assistive technology in educating children with disabilities. Furthermore, it is expected that this study would allow researchers to conduct further studies on the extent to which kindergarten teachers use assistive technology, especially in the education of children with disabilities, in the State of Qatar.

1.6. Procedural definitions

Female kindergarten teachers: are the female teachers from all disciplines and nationalities who work in one of the kindergartens in the State of Qatar in the second semester of the academic year 2018/2019.

Children with disabilities: are the children with one or more disabilities, who are studying in one of the public kindergartens in the State of Qatar in the second semester of the academic year 2018/2019

Use of assistive technology: is the teaching method in which teachers plan, implement, and evaluate their teaching practices by using assistive technology devices and tools. The extent of using assistive technology is measured by the degree that the participants received after responding to the study instrument.

2. Materials and methods

The researchers employed the descriptive survey approach to collect, analyze, and interpret the data to answer the research questions. According to Al-Rushdi (2000) the descriptive research approach included a set of research procedures that integrate to describe the phenomenon or topic, depending on the data collection, classification, processing, and analysis to derive the results or generalizations on the phenomenon or subject under study.

2.1. Study population and sample

The study population consisted of all (108) female kindergarten teachers who teach children with disabilities in the State of Qatar, in the second semester of the academic year 2018/2019. The sample of the study consisted of (83) female teachers, selected by stratified random method, and they constituted, approximately, (77 %) of the study population.

2.2. Study Instrument

To achieve the objectives of the study, the researchers developed a study instrument (questionnaire) to collect data. The process of developing the questionnaire started by reviewing previous studies, and benefiting from the theoretical literature on the use of assistive technology in the education of children with disabilities (Alkahtani, 2013; Myrtil et al., 2018). The study instrument included two sections: 1) demographic information about study participants, 2) 35 items to measure the extent to which kindergarten teachers in Qatar use assistive technology in the education of children with disabilities. The responses of study sample on the questionnaire items were according to Likert scale (5 point scale: Every time = 5, Almost every time = 4, Sometimes = 3, Almost never = 2, and Never = 1).

2.3. Validity

The questionnaire was presented initially to (10) arbitrators from the faculty members of special education specialization, instructional technology specialization, and measurement and evaluation specialization, in order to identify their comments and recommendations regarding the content of questionnaire based on the soundness of the items' language, the comprehensiveness, and appropriateness of the items. The study instrument included in its preliminary form (37) items, and after considering the recommendations of the arbitrators, and by an agreement of 85 %, the study instrument was modified to be composed of 35 items.

2.4. Reliability

The researchers checked the reliability of the study instrument by applying it on 25 female kindergarten teachers from the study population and outside the study sample. After collecting the data, the Cronbach's alpha coefficient (internal consistency) was used to verify the reliability. The result indicated that Cronbach's alpha coefficient was (0.977). This high coefficient of reliability directed the researchers to pursue conducting this research study.

2.5. Study variables

This study has the following variables: First, independent variables that include experience (less than five years, five years to less than ten years, ten years and more), and specialization (special education, general education, non-educational specialization). Second, the dependent variable that is the extent to which kindergarten teachers in Qatar use assistive technology in the education of children with disabilities.

2.6. Statistical Analysis

The researchers used The Statistical Package for Social Sciences (SPSS) to accomplish the following statistical treatments:

1. Means and Standard Deviations to answer the first question and to find the differences of statistical significance for the experience and specialization variables.
2. Two-Way ANOVA test to answer the second question.
3. To determine the cut points for the mean values of the study sample responses, it was divided the range between the highest and lowest scales of the study tool, which is (5-1=4) by the

number of categories of the average distribution. These categories and values are considered as follows: low (1 to 2.33) degrees, moderate (2.34 to 3.67) degrees, and high (3.68 to 5) degrees.

3. Results and Discussion

3.1. First Question

Means and standard deviations were calculated to answer the first question: What is the extent to which kindergarten teachers in Qatar use assistive technology in the education of children with disabilities? Table 1 shows these results.

Table 1. Means and standard deviations of responses of kindergarten teachers in Qatar regarding the use of assistive technology in the education of children with disabilities

Item order	Item No.	Item	M	SD	Degree of use
1	15	Assistive technology helps me to diversify the sources of knowledge for children with disabilities in interesting methods.	4.09	0.849	High
2	5	I use assistive technology in implementing learning activities to increase attention and concentration of children with disabilities.	4.06	0.801	High
3	4	I use assistive technology to increase opportunities for active interaction between children with disabilities and me as a teacher.	3.99	0.834	High
4	14	Assistive technology helps me to facilitate the education of children with disabilities in the regular classroom.	3.98	0.937	High
5	29	I use and employ assistive technology to manage the classroom environment for children with disabilities.	3.95	0.909	High
6	30	I use assistive technology as aid tools to achieve learning outcomes, and do not use them for themselves	3.95	0.882	High
7	6	I use various assistive technology tools that take into account individual differences among children with difficulties	3.93	0.908	High
8	7	I involve children with disabilities in learning games and activities that require the use of assistive technology tools.	3.93	0.866	High
9	35	Using assistive technology improves my teaching practices while teaching children with disabilities.	3.92	0.799	High
10	13	Assistive technology helps me to plan for individual and group educational programs.	3.90	0.892	High
11	24	I seek to make the physical classroom environment rich with assistive technology tools.	3.89	0.841	High
12	31	I chose assistive technology tools tailored to the needs of children with disabilities	3.88	0.903	High
13	32	I use assistive technology to achieve cognitive learning outcomes in the education of children with disabilities.	3.88	0.847	High
14	16	Assistive technology help me overcome the problems I face while teaching	3.87	0.852	High
15	10	The availability of assistive technology tools helps me design and implement computerized educational programs.	3.86	0.938	High
16	20	I encourage children with disabilities to use assistive technology tools to complete individual learning activities.	3.84	0.819	High
17	8	I use supportive technology for children with disabilities to help them invest their time in a constructive way.	3.83	0.809	High
18	12	The use of assistive technology helps me increase the academic achievement of a child with disabilities	3.82	0.899	High

19	17	I employ assistive technology tools to increase self-reliance of a child with disabilities	3.82	0.885	High
20	23	I chose assistive technology tools in accordance with the physical or financial potential of the kindergarten	3.82	0.913	High
21	21	I encourage children with disabilities to use assistive technology tools while working in groups to accomplish learning activities	3.81	0.833	High
22	28	I can easily use assistive technology devices, tools, and programs with children with disabilities.	3.80	0.852	High
23	11	I use assistive technology tools to improve the visual, auditory, and motor skills of children with disabilities	3.76	0.970	High
24	19	Assistive technology tools help me activate the feedback process for children with disabilities.	3.76	0.892	High
25	3	I employ computerized educational programs to develop the abilities and skills of children with difficulties.	3.75	0.935	High
26	27	I use assistive technology in reporting on the performance of children with disabilities.	3.75	1.05	High
27	33	I use assistive technological tools to achieve the kinesthetic learning outcomes in the education of children with disabilities.	3.75	0.895	High
28	34	I use assistive technology tools to achieve emotional learning outcomes in the education of children with disabilities.	3.75	0.948	High
29	9	I use assistive technology tools to increase opportunities for active interaction between children with disabilities.	3.73	0.871	High
30	18	I use assistive technology tools to activate the assessment and diagnosis of children with disabilities	3.72	0.831	High
31	1	I design appropriate computerized educational activities that children with disabilities can accomplish.	3.65	0.930	moderate
32	2	I design computerized educational programs for children with disabilities to enable them to truly interact with learning experiences that are difficult to interact with in the traditional classroom.	3.64	0.970	moderate
33	26	Assistive technology tools help me contact with parents of children with disabilities	3.20	1.13	moderate
34	22	I design computerized educational activities for children with disabilities to accomplish with their parents at home.	2.95	1.21	moderate
35	25	I engage children with disabilities in designing and producing computerized educational programs.	2.73	1.12	moderate
		Average	3.77	0.683	High

Table 1 shows that the overall average of mean of the estimates of kindergarten teachers in Qatar on the scale of the use of assistive technology in the education of children with disabilities was (3.77), with a standard deviation (.683). The value of this mean indicates that kindergarten teachers in Qatar perceive the use of assistive technology in the education of children with disabilities to be high.

This result can be attributed to the competencies and skills associated with the teaching technology of these teachers, their preference for the use of modern technologies in their teaching practices, and their rejection of the old traditional patterns of teaching. Further, this result can be attributed to the availability of capabilities, infrastructure and basic equipment that encourage kindergarten teachers in Qatar to use assistive technology in the education of children with disabilities. Furthermore, The State of Qatar continuously strives to support rehabilitation programs by urging specialized governmental and non-governmental institutions to implement a range of continuous professional development and training programs for specialists and staff working in rehabilitation programs, and to promote and provide assistive technology for persons with disabilities (Al-Hajri, 2013).

The results of this study are consistent with Anagnostou (2015), which showed that teachers are using technology in the classroom to help children with reading and writing problems. The results of this study differ from that of Cardon, Wilcon and Cpbell (2011), which revealed that caregivers were unable to master the use of assistive technology and their actual use was low.

As shown in Table 2, the mean values of the scale items ranged from (4.09) at the highest and (2.73) at the lowest. All items of the scale were high, except items (1, 2, 22, 25, 26) which were moderate. The highest was item (15), which states: "Assistive technology helps me to diversify the sources of knowledge for children with disabilities in interesting methods" with mean (4.09) and a standard deviation (0.849). The following highest item was item (5) which states: "I use assistive technology in implementing learning activities to increase attention and concentration of children with disabilities", with mean (4.06) and a standard deviation (0.801). The third highest response was item (4), which states: "I use assistive technology to increase opportunities for active interaction between children with disabilities and me as a teacher", with mean (3.99) and a standard deviation (0.834).

These results may be attributed to the potential and specifications of assistive technology tools used by Qatari kindergarten teachers in their teaching practices. In addition, they are attributed to their ability to handle these tools and to employ them in a learning environment that enables children with disabilities to access a variety of knowledge sources, to interact in authentic environment, and to increase opportunities for active interaction between them and teachers.

Although, the majority of the questionnaires item were high, Table 2 shows that some items were moderate. For example, item (25), which states: "I engage children with disabilities in designing and producing computerized educational programs" was the lowest in rank with mean (2.73) and standard deviation (1.12). Further, item (22), which states: "I design computerized educational activities for children with disabilities to accomplish with their parents at home" was moderate with mean (2.95), and a standard deviation (1.21). Furthermore, item (26) which states: "Assistive technology tools help me contact with parents of children with disabilities" was moderate too with mean (3.20) and standard deviation (1.13). These results can be attributed to the fact that teachers are often self-reliant in designing learning for children with disabilities without interference from the children themselves or their parents. Further, these results can be attributed to teachers' preference for children with disabilities to practice their learning and learning activities under their supervision within the school environment without relying on parents. Also, this result could be related teachers' concern that parents do not have enough educational competencies to how to deal with children with disabilities.

3.2. Second Question

Means and standard deviations were calculated to answer the second question: "Are there significant differences at the level of significance ($\alpha = 0.05$) in the degree to which kindergarten teachers in Qatar use assistive technology in the education of children with disabilities, due to experience and specialization variables?". Table 2 shows these results.

Table 2. Means and standard deviations of responses of kindergarten teachers in Qatar regarding the use of assistive technology in the education of children with disabilities, due to experience and specialization variables

Variable	Variable level	M	SD	Degree of use
Experience	Special education	3.94	.626	High
	General education	3.70	.623	High
	Non-educational specialization	3.67	.744	High
Specialization	Less than five years	3.47	.863	High
	Five years to less than ten years	3.84	.628	High
	Ten years and more	3.89	.539	High

Table 2 showed that there are apparent differences between means according to experience and specialization variables. To determine the statistical significance of these differences, a Two-Way ANOVA test was calculated, as shown in Table 3.

Table 3. The results of Two-Way ANOVA test according to experience and specialization variables

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	6.862[a]	8	.858	2.022	.055	.179
Intercept	978.195	1	978.1	2305.8	.000	.969
Specialization	2.396	2	1.198	2.824	.066	.071
Experience	2.520	2	1.260	2.971	.057	.074
Specialization*Experience	2.992	4	.748	1.763	.145	.087
Error	31.392	74	.424			
Total	1217.958	83				
Corrected Total	38.255	82				

Table 3 shows that there are no statistically significant differences in the estimates of kindergarten teachers in Qatar on the scale of the use of assistive technology in the education of children with disabilities, due to experience (F = 2.824) and specialization (F = 2.971) variables. The table also shows that there is no effect of interaction between study variables related to experience and specialization (F = 1.763).

These results can be attributed to the fact that kindergarten teachers, regardless of their experience and specialization, practice the use of assistive technology in their educational practices while teaching children with disabilities. In addition, these teachers all share similar educational experiences and have received appropriate in-service or pre-service training, which enable them to possess the necessary skills and experience to use assistive technology.

The results of this study are consistent with those of Myrtil et al. (2018) which revealed that preschool teachers are able to implement technology-mediated interventions, regardless of any difference between them. In addition, this finding is confirmed by the State of Qatar's initial report to the Convention on the Rights of Persons with Disabilities, which emphasized that these persons should be given all rights to ensure their access on an equal basis with others (United Nations, 2014).

3.3. Study Limitations

The results of this study and the possibility of generalization are limited to the following: 1) the population of this research was limited to female kindergarten teachers in Qatar who teach children with disabilities, there are no male teacher who teach in kindergarten stage. Further, this research was conducted in the second semester of the academic year 2018/2019. Furthermore, the results of this study are determined by the extent to which the study instrument's psychometric characteristics and the objectivity of the participants' responses to this instrument items.

4. Conclusion

This study aimed at investigating the opinions of kindergarten teachers in Qatar regarding the use of assistive technology in educating children with disabilities. The study results showed that the use of assistive technology in teaching children with disabilities by female kindergarten teachers in Qatar was high. In addition, they showed that there are no statistically significant differences attributed to experience and specialization variables. In light of these results, researchers recommend that kindergarten teachers should sustain the use of assistive technology in teaching children with disabilities. Further, enabling children with disabilities and their families to share teachers with the design and production of some of assistive technology tools and computerized educational programs tailored to their needs. Furthermore, enhancing the partnership between kindergarten teachers and parents by disseminating good practices related to the use assistive technology tools with children with disabilities. Researchers propose further research studies to reveal the extent to which teachers in public and private schools in Qatar use assistive technology in the education of students with disabilities. As a future implication, many international contexts can benefit from Qatari teachers' experiences in dealing with individuals with disabilities. Stakeholders can learn from the Qatari experience in enhancing kindergarten teachers' opportunities in the use of assistive technology to promote children's abilities and meet their individual needs.

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