

The Obstacles of Using Information and Communication Technology in Teaching Islamic Education to Students with Disabilities from the Teachers' Perspectives

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Abstract

The study aims to identify the most important obstacles to Islamic education teachers' using information and communication technology application programs in schools in Abha, Saudi Arabia. This study Implemented the descriptive analytical approach, where the questionnaire designed by the researcher was implemented to identify the opinions of teachers in Abha about the extent of their practice of basic ICT tools. The participants in this study were 201 teachers in the schools of the Education Directorate in Abha City, distributed over 44 schools in the district. The results of the current study showed apparent differences in the opinions of male and female teachers regarding the obstacles to using information and communication technology in the teaching process. It was clear that male teachers had higher usage rates. The findings showed apparent differences in the obstacles to using information and communication technology by teachers, which could be attributed to the variable of scientific specialization. The findings revealed the importance of using ICT in teaching and the level of obstacles that face Islamic education teachers while dealing with students with LDs. The study implied the importance of using new methods and techniques in teaching Islamic education.

Keywords: Islamic education, teachers, students with learning disabilities, information technology and communication, schools.

1. Introduction

Information and communication technology has an important role in all aspects of life. It has helped to bring about a great civilizational shift. There are no longer spatial or temporal barriers between members of one society, or between members of one society and another (Wahyuningsih, 2016). The world has become a small electronic village; an individual can roam around it and learn about everything in it. The role of information and communication technology in the educational process has emerged since the middle of the twentieth century, as it helps teachers plan and prepare for their lessons, to present them. It also helps students learn effectively interestingly and effectively (Alsawalem, 2019).

Several studies and reports confirm the impact of using information and communication technology on students' achievement and increasing their motivation to learn, developing innovative thinking abilities, the ability to solve problems, reducing learning time, implementing

several difficult experiments, consolidating and approximating concepts, preserving historical facts, and enhancing the principle of collective learning (Perera-Rodríguez & Moriña Díez, 2019), in addition to the services and facilities it provides to teachers such as management and keeping student records and grades, in addition to communicating with students and their parents, and it is also a source of communication with fellow teachers and those with experience in the field of specialization (Qazi et al., 2021). This tremendous development was reflected in the learning system, as educators searched for new methods, strategies, approaches, techniques and models to confront the challenges facing the educational process, to achieve the best educational results. Thus, what is called e-learning emerged (Zulkifli et al., 2022).

E-learning is defined as “a method of education using modern communication mechanisms such as computers, their networks, and their various media such as sound, image, and graphics, as well as search mechanisms, electronic libraries, and Internet portals, whether remotely or in the classroom (Crouse & Rice, 2018). It is the use of technology in all its forms to deliver information to the learner in the shortest time, with the least effort, and with the greatest benefit.” It is defined as “an interactive system for distance education, provided to the learner according to demand, and based on an integrated digital electronic environment, targeting the construction of curricula and their delivery via the electronic network, guidance and direction, and the organization of tests” (Mohamed, 2018: p 24).

The use of technology in education plays an important role in improving the educational process. Using modern technology in education, such as computers, the Internet, interactive boards, and tablets, is a modern educational method used to facilitate access to information for students, enhance their skills and abilities, and increase interaction between parties to the educational process. In addition to providing an effective and advanced educational environment. In this article, we will learn about how to utilize technology in education, and its importance in developing the educational system (Atanga et al., 2020; Weiss et al., 2018).

1.1. Problem statement

With a brief look at previous studies, a review of the role of information and communication technology in the classrooms, and the application programs for information and communication technology used by Islamic Education teachers. There are several skills and competencies that teachers should possess to employ in the teaching process in addition to several factors that may help or stand in the way of this use. Therefore, it becomes clear that teachers' implementation of new technologies is not at the desired level, and several obstacles limit teachers' use of it.

The study aims to identify the most important obstacles to using information and communication technology application programs by male and female Islamic education teachers in schools in Abha, Saudi Arabia. It further seeks to determine the degree to which educators employ information and communication technology's fundamental applications and software, the amount to which they do so for instructional reasons, and the barriers that prevent them from doing so.

1.2. Questions of the study

This study answers the following research questions.

- 1- What are the obstacles to the use of information and communication technology by Islamic education teachers for teaching students with LDs from their point of view?
- 2- Do the obstacles to the use of information and communication technology by Islamic education teachers for teaching students with LDs differ according to gender?
- 3- Do the obstacles to the use of information and communication technology by Islamic education teachers for teaching students with LDs differ according to academic qualifications and experience?

1.3. Significance of the study

This study deals with a modern trend in the educational and pedagogical process, which is e-learning, in an appropriate scientific way. It helps in revealing the basic applications and software of information and communication technology that teachers use and practice for teaching purposes, to reveal the shortcomings in employing these applications and software and to know their training needs to develop their uses and employ them in teaching. The results identify the obstacles to employing information and communication technology in the educational process, to take the necessary measures to overcome these obstacles and employ this technology in a better way.

1.4. Study Limitations

Spatial limits: The study was implemented in Abha, Aseer District Education Schools.

Time limits: The questionnaire was applied in the second semester of the 2023-2024 academic year

The current study is limited to identifying the obstacles facing teachers in using information and communication technology and employing it in teaching, as well as identifying software and applications in the educational process. Therefore, it is not concerned with developing solutions to avoid these obstacles.

2. Literature Review

The digital era has transformed every element of our everyday lives, and education is no exception. Recall that educational technology comprises a range of information and communication resources, procedures, and instruments utilized in the many disciplines and levels of the educational system to support its operations and structure. Collaboration between students in the same room, at school, and in other schools worldwide may be improved with the use of technology (Alanazy & Alrusaiyes, 2021). Additionally, utilizing technology in the classroom helps educators and learners acquire critical skills. It's a popular belief that introducing technology into the classroom will cause student distraction. After all, we are constantly distracted by our phones in both our personal and professional lives. We are losing the option to decide whether to exclude technology from schools as the majority of courses and employment are now conducted online. Technology integration is becoming increasingly important in order

to keep your classroom engaged as it becomes a necessary part of any learning environment (Qazi et al., 2021).

Through the development of new electronic technologies and the diversification of information and knowledge sources, information and computer technology contribute to the creation of an interactive learning environment. By using various communication channels, including e-mail, students and instructors may exchange educational experiences, ideas, conversation, and information, which also serves to boost the efficacy of the interaction process (Bagon et al., 2018). Using ICT provides teachers and students with the technical skills and competencies necessary to use modern educational technologies. ICT expands the circle of student communications through global and local communication networks, which leads to an increase in sources of knowledge, by linking the educational site to other educational sites (Nordström et al., 2019). Providing appropriate education for each age group, taking into account individual differences among students. E-learning helps learning through scientific content, presented using new electronic media such as computers and the Internet without being obligated to attend classrooms at specific times (Dinc, 2019).

The negative trend among social studies teachers affects the use of technology in teaching social studies, as some teachers tend to use the method of indoctrination and narration. From here, it can be said that the nature of the educational material may lead to the formation of negative trends among the teachers (Alanazy & Alrusaiyes, 2021). As for the Islamic education subject, this subject is characterized by a multiplicity of topics and the multiplicity of its skills. Sometimes the Islamic education teacher is required to provide students with certain skills, as in the recitation subject, as the goal in this case is to provide students with recitation skills, and sometimes the subject requires topic to provide students with certain concepts, such as in the subject of jurisprudence, which is rich in jurisprudential concepts (Alsawalem, 2019).

Even if e-learning has numerous benefits, it should be understood that it is a vast and complicated concept that impacts many parts of life and that in order to attain the aforementioned aims and benefits, a combination of diverse elements must be used (Karatza, 2019). E-learning has basic requirements and foundations, the most important of which is the curriculum, which must include electronic presentations of lessons, supported by supporting activities that move the curriculum from the traditional presentation style to a more realistic and interactive style (Cagiltay et al., 2019). Here we must not forget that the student in the e-learning environment must have the academic ability and the ability to use information and communication technology techniques and understand and master the skills of social interaction and collaborative learning. To support and encourage these qualities and skills effectively, designers of e-learning environments and teachers must focus on designing programs and environments of discovery and dialogue that require the learner to use the skills of communication, cooperation and self-learning (Magen-Nagar & Firstater, 2019).

It is clear from the above that the success of any e-learning effort depends on the ability and competence of the teachers assigned to provide this type of education and learning, which means that the appropriate application of e-learning requires teachers who can implement it, in addition to providing the appropriate educational environment (Alanazy & Alrusaiyes, 2021). Despite the belief of many educators in the great importance of information and communication technology,

we find some obstacles still standing as a stumbling block in the way of its introduction into the educational process. For the teacher to be able to benefit from information and communication technology in the educational process, he must possess the technical capabilities and skills that enable him to deal with its various devices and means, as well as the skills that help in using it in teaching and managing its use in the educational process, in addition to his belief in its importance and the facilities that it can provide to him and his students (Fernández-Batanero et al., 2022).

The mid-twentieth century witnessed an increasing interest in seeking knowledge, which increased the number of students in schools and various educational institutions, as well as the crowding of classrooms with students, in addition to the rapid increase in knowledge, the increase in the volume of the prescribed scientific material, and the inclusion of many partial details in the curricula (Qaddumi et al., 2021). All of this led to an increase in the teacher's burden and responsibilities in transferring knowledge to students, and the need to search for modern methods to use in conveying information in a way that motivates students (Cabero-Almenara et al., 2022).

Previous studies

Baharudin et al. (2024) conducted a study on level two Islamic education students with hearing impairments. The study examined the creation and usage of the 'e-ibadah' application. Percentages, frequencies, means, and standard deviations were used to present the results of this quantitative descriptive research. From Perak and Melaka's National Special Education Schools, 30 special education instructors were chosen using the purposive sample approach. The need to develop the 'e-ibadah' applications and the gap in level two learners' understanding of prayer movements and recitations were both addressed in a survey that was undertaken. There were five sections to the survey: participant demographics, instructional media module requirements, internet access, application design, and the questionnaire itself. The study's five overarching themes provide light on the extent to which students with level 2 hearing difficulties have mastered the art of prayer. A weak mastery of prayer movements and recitations was discovered. Therefore, to pique students' interest and foster their motivation to learn, it is necessary to diversify how the e-ibadah smartphone app is used for both instruction and study.

Algolaylat et al. (2023) explored how disabled students at the University in Jordan feel about the difficulties they may have while trying to use inclusive education approaches. The study used a qualitative case study methodology and involved interviewing ten kids who had physical and sensory disabilities. Descriptive coding techniques and semi-structured interviews were used for data gathering and analysis. The five main topics that arose from the research were the physical environment, modifications, personal attitudes, assistive technology, support, and administrative procedures as the main barriers to inclusive educational practices that the institution's handicapped students faced. To help Jordanian institutions implement the most effective inclusive education approaches, this report offers several suggestions.

Qaddumi et al. (2023) investigated through the eyes of Palestinian English language instructors how ICT is integrated into the English language classroom. Researchers used a quantitative technique to compile information from 780 language school instructors from 260 schools who

took part in an ICT-based TEFL course initiative. The participants were asked to fill out a survey about the impact of the COVID-19 pandemic on language instruction and their strategies for coping with it. We conducted a statistical analysis of the replies across four domains: students' actual usage of ICT, ICT in education as a whole, ICT to bolster EFL instruction and learning, and instructors' estimations of their own ICT competence. The results showed that although there are still obstacles to using ICT, English language instructors in Palestinian public schools think it has great potential to help students learn English.

Khasawneh (2021) evaluated the challenges associated with using online learning resources to instruct children with learning difficulties in the English language as a subject during the emergence of the COVID-19 epidemic. With a focus on the four aspects of school administration, school equipment, instructors, and students, the research used a descriptive technique to construct a questionnaire with forty questions. We used the instrument with a randomly chosen sample of 200 educators once we made sure it was valid and reliable. Despite the new COVID-19 framework, the research found that instructors in Jordan have challenges when trying to utilise e-learning to teach English to kids with learning difficulties. Furthermore, the findings showed that the factors (gender and academic degree) were significantly different in how instructors responded to the challenges of online learning. The study concluded that the eLearning system should allow users to communicate with one another and should restrict interruptions based on the outcomes.

Alghayth (2019) explored what effect Islamic education instructors think digital tools have on their students' learning. Five Islamic education instructors with strong digital skills were selected using a snowball selection technique to participate in the study, which used a case study design and a qualitative research approach. To collect data, we employed audio-visual analysis, in-person observations, and interviews. The data was analysed thematically using NVIVO 14 software. Methods such as inter-rater reliability testing, rich and thick audit trails, credibility checks, member checks and peer reviews guarantee that qualitative research data is trustworthy, transferable, and reliable. The study's four overarching themes and eight underlying subthemes tackle the study's stated goals, which include more systematic data management, faster information access, more effective problem-solving, and higher classroom efficiency. This research aims to provide a perspective that supports Islamic education instructors in maximizing the use of digital technology both in the classroom and in their daily work.

3. Methodology

This study used the descriptive analytical approach, where the questionnaire designed by the researcher was implemented to identify the perspectives of teachers in Abha on the extent of their practice of the main ICT tools, the level of using these tools in teaching, and the obstacles that stand in the way of their use.

3.1. Sampling

The participants in this study included 201 teachers from both genders in the schools of the Education Directorate in Abha City, distributed over 44 schools in the district. The participants

were selected by a simple random method, where the researcher drew the sample members by lottery after obtaining a serial list of the names of teachers in the aforementioned schools from the Personnel Affairs Department in the Education Directorate in Abha City.

3.2. Instrument of the study

The researcher created the study instrument (questionnaire), which included eighteen paragraphs, after reviewing earlier research related to information and communication technology, the prerequisites for its usage in the teaching and learning process, and the obstacles to its use in education. The questionnaire consisted of (18) paragraphs divided into three parts. The first is on obstacles of using information and communication technology related to the school (6 items). The second part is on obstacles of using information and communication technology related to the teacher (6 items). the third part is on obstacles of using information and communication technology related to the students (6 items).

The researcher presented the questionnaire to a group of (15) arbitrators, including professors of education, information and communication technology, professors of psychology, measurement and evaluation, Arabic language teachers, and a group of teachers from schools included in the study sample. The purpose was to identify their opinions on the questionnaire in terms of the soundness of the linguistic formulation of its paragraphs, the extent to which the paragraphs are comprehensive and represent the questionnaire's axes, and the extent to which the questionnaire is appropriate and suitable for the current study. The researcher took the opinions of the arbitrators into account, as some paragraphs were deleted and added, some modifications were made according to the arbitrators' comments and directions, and the tool was put in its final form according to the arbitrators' modifications and opinions.

Regarding the study instrument's reliability, stability was determined using Coronach's alpha stability for both the questionnaire's overall and each of its dimensions. The stability coefficients for the questionnaire's dimensions and overall questionnaire are displayed in Table 1.

Table 1. Coronach's alpha stability coefficients

Number	Dimension	stability coefficients
1	obstacles to using information and communication technology related to the school	0.86
2	obstacles to using information and communication technology related to the teacher	0.90
3	obstacles of using information and communication technology related to the students	0.88
	Total	0.88

The earlier findings in Table 1 demonstrate that all stability coefficients are high, adequate to meet the goals of this investigation, and that it is possible to depend on the findings.

3.3. Data analysis

In accordance with the specifications of the study variables, the researcher computed descriptive statistics (mean scores, standard deviation, percentages, and frequencies). A sample t-test was performed on the barriers to using ICT based on the gender variable in order to investigate any variations between the means of the respondents' replies (T-test). The responses of the participants to the research tool were analysed using a two-way ANOVA analysis of variance in

order to look for variations based on the study variables (years of experience and scientific qualification).

4. Results and discussion

4.1. Question one

The mean scores and standard deviations were calculated for each obstacle to the use of information and communication technology for teaching purposes. Table 2 shows the mean scores and standard deviations for the obstacles facing the usage of information and communication technology for teaching purposes.

NO.	Item	M.S	S. Dev
1.	Insufficient numbers of computers are present in classrooms.	4.3	1.22
2.	Too little time to use ICT (information and communication technology) for instruction	3.97	1.04
3.	insufficient infrastructure for utilizing ICT technologies in the classroom	3.9	1.09
4.	Absence of instructional software relevant to the topic matter I teach	3.6	1.20
5.	inadequate instruction on the use of information and communication technologies in education	3.34	1.24
6.	The dearth of Arabic-language instructional websites relevant to my field of study on the Internet	3.2	1.06
7.	Lack of appropriate classroom environment in the computer laboratory	3.17	1.30
8.	The equipment available in the computer laboratory is not suitable for the number of students	3.13	1.32
9.	My level of English is poor	3.10	1.27
10.	A large percentage of pupils lack computer experience	3.02	1.27
11.	Overcrowding of students in the classroom	2.84	1.32
12.	The prevailing state of mind among many is resistance to change	2.82	1.18
13.	Fear that what we read and see online contradicts our deeply held religious convictions and cultural norms	2.80	1.20
14.	Low desire to use information and communication technology in teaching	2.66	1.13
15.	Computer supervisors do not cooperate with teachers	2.65	1.16
16.	My ignorance of Arabic or overseas educational websites that support the curriculum	2.60	1.20
17.	I believe that integrating computers into the classroom dilutes the essence of education.	2.52	1.20
18.	I don't believe that using ICT serves the subject I teach	2.36	1.20

The results in Table 2 above indicate “the lack of a sufficient number of computers in classrooms”, “the lack of sufficient time to employ information and communication technology in teaching”, and “the lack of supporting infrastructure to employ information and communication technology in teaching”, and “the lack of educational software that serves the subject that I teach”. In addition to “weak training in how to employ ICT in teaching”, the obstacles that prevent teachers from employing and using ICT for teaching purposes were at the forefront, with arithmetic averages of (3.31, 3.6, 3.9, and 3.97, respectively).

It is obvious that the prevalence of these obstacles, especially the lack of sufficient number of computers in classrooms, as well as the lack of training in how to employ information and communication technology and use it in teaching, in addition to the lack of a suitable classroom environment in computer labs with a mean score of (3.17) and a standard deviation of (1.30), all of this led to a limitation in the use of information and communication technology by male and female teachers in teaching. Therefore, training teachers on the use of computers and various information and communication technology software is not sufficient in light of the

unavailability of these means in schools. In addition, teachers do not have the necessary competencies and skills to use this software and employ them for teaching purposes.

The lack of sufficient time due to the large number of study materials and the crowding of teachers' schedules with school classes does not allow them the opportunity to employ this technology and use it for teaching purposes, so they resort to using other traditional methods in teaching, which require less time and effort. Studies have confirmed that the small number of computers in laboratories and classrooms, the weakness of the infrastructure, and the lack of sufficient time for teachers due to the crowding of classrooms and the crowding of study materials, all of this has led to limitations in the use of information and communication technology by teachers in teaching.

The opinions of male and female teachers regarding the remaining obstacles varied, despite the fact that their arithmetic averages ranged (2.36-3.1) and could not be excluded. This could be attributed to the fact that the scientific specialisations of the study sample were not homogeneous, that male and female teachers lacked the necessary time, and that the infrastructure (i.e., equipment) was lacking. As a result, the teachers failed to notice the other obstacles even though they existed. This suggests that instructors had a positive attitude on the usage of ICT in the classroom, indicating that the study sample members are both willing and persuaded of the value of this technology. This indicates that the lack of information technology use and employment is not a result of their disapproval of it, but rather of other barriers that prevent its application in the classroom.

4.2. Question two

To answer the second study question on the differences in the obstacles to the use of information and communication technology by teachers according to gender, The differences between the averages were calculated. Table 3 shows the T-test results to examine the differences between the averages of the sample members' responses according to the gender variable.

Table 3. T-test results in the differences between the responses according to the gender variable

Category	Number	Mean score	Standard deviation	T value	Freedom value	Sig.
Male	90	59.08	10.7	2.76	99	0.007
Female	111	53.24	10.4			

Table 3 demonstrates that the value of (t) was (2.75), which is statistically significant, indicating the existence of significant differences between the opinions of male and female teachers regarding the barriers to the use of information and communication technology for teaching purposes. The arithmetic mean of the results is (59.07), and the standard deviation is (10.8). This might be explained by the fact that male educators perceive and experience these challenges and barriers more than female educators do, as well as the fact that female educators are less unhappy with the state of affairs in their schools than male educators are. The female teachers showed better knowledge of using the new technologies and therefore faced lower rates of obstacles.

4.3. The third question

The study used two-way variance analysis to determine the impact of academic qualification and years of experience on the opinions of the sample on the obstacles to using information and communication technology in teaching. Table 4 shows the results of this analysis.

Table 4. Two-way ANOVA analysis for the variables of academic qualification and years of experience

Source of variance		Sum of squares	Freedom Value	Mean square	F value	Sig.
Academic qualification	Between groups	8.6	36	0.240	0.760	0.812
	Within groups	20.2	64	0.315		
	Total variance	28.8	100			
Years of experience	Between groups	5.2	36	0.144	0.653	0.916
	Within groups	14.2	64	0.221		
	Total variance	19.4	100			

The findings presented in Table 4 indicate that the variable of scientific specialisation does not appear to have any statistically significant impact on the barriers that instructors face when attempting to use ICT. This may be explained by the numerous barriers that prevent educators from moving from the familiarity and understanding of information and communication technology to the actual implementation and use of it in the classroom.

The findings presented in Table 4 further suggest that the variable of academic qualification does not significantly affect the barriers that instructors face when attempting to use ICT. This might be explained by the possibility that using technology for instruction has nothing to do with academic standing. It is possible that some highly qualified educators lack the information and communication technology skills necessary to use it effectively in the classroom, and vice versa. Here, the degree of instruction, practice, and application is crucial.

Table 4's findings demonstrated that the experience variable was not responsible for any statistically significant variations. This may be attributed to the Ministry of Education's encouragement to participate in the free courses it offers to male and female teachers without considering their experience in computer driving, such as the Intel course and the Education for the Future course (ICDL). The teacher who passes these courses receives a financial incentive and a promotion to a higher academic rank. The experience factor is very important in determining the level of using these technologies, as the more experience the teacher has the more usage he will implement in the classroom.

5. Conclusion

Most of the study sample members (91.1%) use the World Wide Web (Internet), which confirms the teachers' awareness of the significance of the Internet and its usage. The finding indicate that (63%) of the study sample members use e-mail to communicate with their colleagues and with each other. (80.2%) of the study, sample members use word processing programs, and (76.3%) use presentation programs, as these programs are among the basics that the teacher must master to be able to benefit from them in writing his exam questions. The most important obstacles shown by the study results, which prevent teachers from employing information and communication technology and using it for teaching purposes, are: "the lack of sufficient number of computers in classrooms", "the lack of sufficient time to employ information and

communication technology in teaching”, “the lack of supporting infrastructure for employing information and communication technology in teaching”, “the lack of educational software that serves the subject that I teach”, in addition to “weak training in how to employ information and communication technology in teaching”.

The study's findings demonstrated a substantial difference in the perspectives of male and female educators about the barriers to utilising ICT in the classroom, with a mean arithmetic of 59.07 and a standard deviation of 10.8, favouring the former group. There were no statistically significant differences in the obstacles to the use of information and communication technology by male and female teachers, which could be attributed to the variable of scientific specialization.

6. Recommendations

The study recommends conducting research in the field of e-learning on an ongoing basis to inform teachers and officials about the impact of using technology in the educational process. Training teachers to drive computers is not enough; it must go beyond that to involve teachers in specialized courses in employing this technology and using it for teaching purposes. Training students and teachers to use information and communication technology in education, by providing schools with the necessary educational equipment and software for this. Calling for making information and communication technology an essential tool in the educational process at all educational levels, in addition to providing the infrastructure for this technology in schools from computers, laboratories, communication networks, etc. Reviewing the curricula and materials taught to students at different educational levels in schools, and restructuring them in a manner that is consistent with the time required to employ information and communication technology in teaching them.

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