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Teachers' Practices to Improve Preschoolers' Digital Citizenship According to the International Society for Technology in Education (ISTE) Standards

Ghadi Ali Hussein Al Amer

Master in Early Childhood, Lecturer, Najran University, Kingdom of Saudi Arabia

*Corresponding Author: Ghadi Ali Hussein Al Amer, Master in Early Childhood, Lecturer, Najran University, Kingdom of Saudi Arabia

Abstract: The study aimed to identify teachers' practices in developing the preschoolers' digital citizenship according to the International Society for Technology in Education Standards, and explore the effect of the variables "years of experience and training courses" on the study sample responses. The study used the descriptive method and employed the questionnaire on the sample of (169) female teachers in public preschools in Najran. The study findings concluded the total approval for preschool teachers regarding the practices of developing preschoolers' digital citizenship according to ISTE standards came with a (high) approval in the questionnaire items. the questionnaire's second domain about preschoolers' training in digital citizenship application came in the first rank with "very high" approval, the first domain about preschool teachers' practices in teaching digital citizenship to preschoolers according to ISTE standards came in the second rank with "high" approval, and the third domain about the professional development of preschool teachers on digital citizenship came in the third rank with "high" approval. The study recommended integrating digital citizenship practices according to ISTE standards in educational programs of institutions for preschool teachers' preparation and kindergarten colleges and rendering the competent authorities to train preschool teachers in determining the necessary professional training needs about interests in teaching digital citizenship to preschoolers.

Keywords: Digital Citizenship, Preschool Teachers' Practices, International Society for Technology in Education Standards.

1. Introduction

The childhood stage is considered one of the most important stages of life through which the child's personality and social and intellectual values are formed, which requires professional practices by the kindergarten teacher. The frequency of interest in technology through its integration into education, and reliance on technological applications. Digital citizenship refers to the appropriate rules of behavior related to positive and safe technological use of computers and the Internet. It also includes protection from its dangers and guidance towards benefiting from its benefits (Hassan, 2017). , and video games that have become part of the child's lifestyle, and their use in kindergarten classes; Where there was a need to support children's understanding to be safe users of digital technology (Al-Zeyoudi, 2015).

Digital citizenship refers to the appropriate rules of behavior related to positive and safe technological use of computers and the Internet. It also includes protection from its dangers and guidance towards benefiting from its benefits (Hassan, 2017). , and video games that have become part of the child's lifestyle, and their use in kindergarten classes; Where there was a need to support children's understanding to be safe users of digital technology (Al-Zeyoudi, 2015).

What confirms the importance of developing digital citizenship is the change in the educational system during the Corona (Covid-19) pandemic. The shift of education in all institutions and stages, including the kindergarten stage, to distance education; Where the child is now receiving his education through digital means of communication, and the virtual kindergarten platform. And because educational institutions have a great role in training and guiding children on digital citizenship and promoting its values (Shaaban, 2018).

The kindergarten institution, in particular, has had a role in shaping and developing the child's skills through the practices of the professional teacher who helps children with proper guidance in this technological age (Abdul Khaleq, 2017). In terms of the teacher's role in developing a child capable of positive use of digital technology, Al-Ahmadi (2020) indicates that the kindergarten teacher's practices of digital citizenship are a must. Because children use digital devices, whether to communicate with others, or through electronic games.

In the same context, the International Society for Technology in Education: ISTE has set standards for responsible practices by female teachers to implement digital citizenship. (Al-Attar, 2020) mentions that the standards focused on improving educational outcomes, enriching scientific concepts, and professional practices for a sustainable digital learning environment. The Education and Training Evaluation Authority has also defined professional practices for female teachers, making the application of digital citizenship - such as the safe, legal, and ethical use, and the rules for protecting the intellectual and creative rights of others while using digital resources and tools - one of the professional practices that the female teacher is obligated to (Education and Training Evaluation Authority, 2017), As confirmed by the study (Al-Sulaihat, 2018; Tawalbeh and Al-Shayeb, 2019; Abdel-Latif, 2019; Abed Rabbo, 2020; Eniko, 2021)). The need to raise awareness of the proper and safe use of technology, and the need to enhance the dimensions of digital citizenship. Al-Bassat (2014) believes that good education in kindergarten depends on what the teacher provides in terms of practices, information, skills, and attitudes in the field of teaching and developing children's experiences. As they are the promising generation that will build the future of the Kingdom, and achieve its vision and aspirations. From this standpoint, the current study came to identify the practices of female teachers to develop digital citizenship for kindergarten children according to the standards of the International Association for Technology in Education.

A number of studies have been conducted that focused on researching digital citizenship and ways of developing it among students at different educational levels. Gayatri (2016) conducted a study aimed at knowing the level of digital citizenship among children and adolescents in Indonesia, and the nature of their use of social media and digital technology, the study concluded that children use digital technologies and have three main motives for accessing the Internet: searching for information, communicating with friends, and entertainment. Children by protecting children's rights to access information.

As for Tomé & de Abreu's study (Tomé & de Abreu, 2016), it aimed to develop an in-service training program to teach digital citizenship, and to know its role in improving digital culture practices for preschool teachers in Portugal, and its ability to empower children. To become digital citizens. The longitudinal study method based on action research was used, and the training program was developed. To collect the data of the study, a questionnaire was used that was applied to a sample consisting of (10) pre-school teachers and (15) primary school teachers. The results of the study showed that there is a clear lack of practices of digital culture and citizenship among children, and weak interaction of children with digital media.

Al-Qahtani (2017) conducted a study aimed at revealing the extent of Saudi male and female teachers' understanding of digital citizenship, and knowing the effect of gender, school stage, and years of experience on Saudi male and female teachers' perceptions of awareness of digital citizenship. To achieve this, the mixed approach was chosen and applied. A semi-structured interview with four teachers, and an electronic questionnaire distributed to (361) teachers. The results showed a high level of female teachers' awareness of digital citizenship in the areas of respect, protection, and education.

Mahrous (2018) presented a study aimed at identifying the level of knowledge of early childhood teachers in the Kingdom of Saudi Arabia about the dimensions of digital citizenship. To achieve this, the descriptive approach was used, and to collect study data, a digital citizenship awareness scale was designed that was applied to a sample of (50) kindergarten teachers. Children in the Kingdom of Saudi Arabia, and the results of the study showed that there is a lack of kindergarten teachers in the Kingdom of Saudi Arabia in their awareness of the dimensions of digital citizenship represented in respect, education, and protection. Kindergarten.

Likewise, Abdul Latif (2019)'s study aimed to develop a proposed vision about the role that each of the family and kindergartens can play; In order to provide the kindergarten child with some concepts of digital citizenship, the study relied on the descriptive approach, and the study sample included (50) kindergarten teachers in Jazan region, (473) parents of children enrolled in kindergartens, and (100) children who were subjected to the illustrated situations test. The questionnaire was also applied to the study sample of teachers and parents, and the results of the study showed the lack of knowledge of the kindergarten child about the concepts of digital citizenship, the weak awareness of the children's parents about these concepts, and the lack of sufficient knowledge of the kindergarten teacher of the concepts of digital citizenship. This affected their roles in providing children with the concepts and practices of digital citizenship.

Al-Hefny's study (2020) also aimed to reveal the values and skills of digital citizenship in kindergartens, and to build a proposed vision for integrating digital citizenship in kindergarten institutions. To achieve this, the descriptive approach was used, and a questionnaire was applied to (48) kindergarten teachers in Egypt, and the results showed the availability of citizenship values Digital education and its skills in kindergarten in the curricula to a small degree, and that it is not explicitly included in the curricula and curricula of kindergartens. and its contributions in light of digital challenges.

While Flaanderen (2020) presented a study with the aim of identifying methods of promoting digital citizenship among children through a set of interventions to combat cyber bullying. Based on the theory of planned behavior in the Netherlands, and to achieve this, a program was applied to children to combat cyber bullying, and the two-group experimental approach was used, and a measure of knowledge and awareness of cyber bullying was built, and empathy towards victims was applied to (298) children, the results showed that children who were exposed to the anti-cyber bullying intervention program showed improved knowledge and awareness of cyber bullying, great empathy for the cyber bullied victims, and developed rules of positive self-criteria; To control their behaviors, linked to the values of digital citizenship acquired from the intervention program when exposed to cyber bullying, and they had an appropriate behavioral acceptance and response when dealing with the situations compared to children who were not exposed to the intervention through the program.

As for the study of Abed Rabbo (2020), it sought to build a proposed vision to enhance digital citizenship and national identity, using three-dimensional technology for kindergarten children from the viewpoint of female teachers. The most important values of digital citizenship are appropriate for kindergarten children in the Taif region. (200) kindergarten teachers in Taif, and the study concluded a proposal to enhance digital citizenship among kindergarten children through the use of three-dimensional technology for kindergarten children.

Atallah (2020) conducted a study aimed at verifying the effectiveness of a program based on electronic games. To develop digital citizenship skills in early childhood in the light of national standards for educational technology, in line with the skills of the twenty-first century. The study used the two-group experimental approach. A program based on electronic games was designed to develop digital citizenship skills. To verify the effectiveness of the educational program, the digital citizenship skills test was used, which was applied to a sample of (66) children in a private school in Matrouh Governorate, Egypt. The results of the study showed that there were statistically significant differences between the experimental and control groups in the development of digital citizenship skills in early childhood, in favor of the experimental group, and the presence of statistically significant differences between the pre and post measurements in the development of digital citizenship skills in early childhood in favor of the post-measurement of the experimental group. Follow the tutorial.

Al-Banna's study (2021) aimed to identify the effectiveness of a proposed unit for developing some concepts and skills of digital citizenship among kindergarten children. They are: contacting others, etiquette, research and knowledge, online browsing, security and privacy, and health and safety. The researcher used the semi-experimental approach, and the sample consisted of (30) male and female children in the State of Egypt. The researcher prepared a unit to develop some concepts and skills of digital citizenship among kindergarten children. To collect study data, a digital citizenship test was built, and a note card for digital citizenship skills among kindergarten children. Results of the study:

There is effectiveness in teaching children the concepts and skills of digital citizenship through the proposed unit, and its impact on the development of concepts and skills of digital citizenship among kindergarten children.

Ghandoura added (2021) a study with the aim of determining the degree to which kindergarten curricula in the Kingdom of Saudi Arabia include some concepts of digital citizenship in light of the requirements of the digital age. The content of a list of digital citizenship concepts that must be available in kindergarten curricula. The study concluded that the degree of inclusion of digital citizenship concepts in light of the requirements of the digital age in kindergarten curricula came to a low degree.

From the studies previously presented, it is clear that the current study is consistent with some studies that looked at digital citizenship and the practices used to develop it among early childhood students, such as the study ((Tomé & de Abreu, 2016; Al-Qahtani, 2017; Mahrous, 2018; Al-Hefny, 2020 (Vlaanderen, 2020). However, the current study differs from those studies in its aim, which seeks to identify teachers' practices for the development of digital citizenship for children, according to the standards of the International Association for Technology in Education. The study has benefited from previous studies in building its theoretical literature, choosing its approach, building its tools, and its axes, and in clarifying the role of ISTE standards; To promote the values and skills of digital citizenship, and to explain the theoretical foundations on which the teaching and learning of digital citizenship was based. The current study was distinguished from previous studies by targeting kindergarten teachers in the Kingdom of Saudi Arabia in the Najran region, and identifying professional practices related to digital citizenship, and their development for kindergarten children, according to the standards of the International Society for Technology in Education ISTE, while no studies were conducted on this subject at the level of the Kingdom of Saudi Arabia Saudi Arabia.

2. STATEMENT OF THE PROBLEM

Based on the role of digital technology and communications in bringing about a qualitative and tangible shift in human life, and its impact on achieving sustainable development in education, through digital transformation in the field of education and equal educational opportunities. And in line with what the Kingdom of Saudi Arabia's vision 2030 seeks to achieve a vibrant society, a prosperous economy, and an ambitious nation, the capabilities and skills of the citizen are the most important resources that it is necessary to invest, by developing a generation capable of dealing with technology and using it positively in the service of society and the nation, as guidance is considered in Proper handling of technology is one of the goals of digital citizenship (Al-Ahmadi, 2020).

Accordingly, many countries, such as Britain, the United States and Canada, have paid attention to providing digital citizenship and educating their societies starting from childhood, by including digital citizenship as curricula that are taught and trained under the name of the digital education curriculum (Tawalbeh and Al-Shayeb, 2019). And at the local level, in the field of interest in educating the learner on the correct way to use digital technology. Just as the Ministry of Education was keen to continue the educational process in light of the crises, technology had the most prominent role in terms of the possibility for every child to obtain education at any time and from anywhere, through applications and electronic platforms suitable for the characteristics and needs of the age group (Al-Yami, 2021).

The Ministry of Education in the Kingdom of Saudi Arabia seeks to include digital skills in the curricula of the fifth and sixth grades of primary school, starting from the year 1441 AH, in order to introduce them to the most important digital information that they need, as it is considered one of the most important skills that an individual needs (Ministry of Education, 2020).

Although educational systems, institutions, and universities in the Kingdom of Saudi Arabia are working on comprehensive preparation to keep abreast of changes and developments in the field of technology and digital media, achieving digital citizenship, and acquiring their skills, the Corona pandemic and the closure of educational institutions from kindergartens to universities in March 2020 AD, and the transformation rapid and complete distance education; This led to the emergence of a digital gap represented by the lack of the educational staff of these institutions with the skills of digital citizenship (Al-Hudhaif, 2021).

Therefore, the teacher's knowledge of digital citizenship and their practice has a basic requirement to educate learners about the positive and correct use of technology. The International Society for Technology in Education (ISTE) has presented standards for teachers to apply and practice digital citizenship due to its importance in the era of technology (Pescetta, 2012). The standards included: guiding the learner to positive and responsible participation in the digital world, security and legal practices when using digital technology, promoting digital culture and critical examination of online resources, developing learner awareness of the sustainability of what they do in the digital world, training learners to manage their personal data to maintain their digital privacy.

A study has shown (Hashish, 2018; Mahrous, 2018). Teachers' lack of knowledge of digital citizenship, and children's lack of guidance on appropriate websites, and a study (Al-Qahthani, 2018; Al-Jazzar, 2018; (Yildirim's, 2019) recommended the need to teach digital citizenship and promote its values, as Salim (2018) points out. In order for the child to be able to deal with the various scientific and technological developments, he must acquire digital citizenship through the roles and practices that the teacher plays.

The Digital Citizenship Forum towards a Safe Electronic Society at Umm Al-Qura University (2019) and the Intellectual Security "Digital Citizenship" Forum at King Khalid University (2019) also recommended strengthening the role of educational institutions to inculcate the values of digital citizenship in children, and educate the family with its members regarding optimal dealing with means of communication. Social in order to achieve digital citizenship.

The results of the exploratory study conducted by the researcher with the aim of revealing the professional practices of kindergarten teachers for digital citizenship, and finding out the extent to which they can train the child to deal with technologies through an electronic questionnaire sent to a sample of kindergarten teachers, whose number is (24) showed. The results of the survey are that (58) do not have sufficient knowledge of the concept of digital citizenship, and that (61) do not provide guidance on ways to protect children's digital data, which is represented in not disclosing personal information to anonymous persons that facilitate identification and location.

In order to raise generations aware of digital technologies, this study came to search for the professional practices of female teachers in the development of digital citizenship for kindergarten children according to the standards of the International Society for Technology in Education (ISTE). International Society for Technology in Education. This is done by answering the following question: What is the degree of female teachers' practices to develop digital citizenship for kindergarten children according to the standards of the International Association for Technology in Education?

3. SIGNIFICANCE OF THE STUDY

- 1. The importance of early childhood; the child's identity and personality are formed, and his skills, cognitive abilities, and skills are formed.
- 2. It is hoped that the study will contribute to enriching the educational literature. Where she dealt with the practices of digital citizenship for kindergarten teacher.
- 3. The study is expected to provide information on the issue of digital citizenship for children in light of the challenges, the accumulation of knowledge, and the scientific and technological revolution that the world is witnessing.
- 4. The study presents an idea of the practices that the teacher should apply to teach the child to use technology in a careful and safe manner.
- 5. Opening the door for other research studies dealing with digital citizenship, and how to use it to achieve best practices.
- 6. Contribute to preparing the child to keep pace with aspirations and developments in the digital age, and adapt to them.
- 7. Kindergarten teachers and educational supervisors can benefit from the results of the research in identifying practices that develop children's digital citizenship.

4. OBJECTIVES OF THE STUDY

It aimed to identify the degree of female teachers' practices to develop digital citizenship for kindergarten children according to the standards of the International Association for Technology in Education.

5. THE LIMITS OF THE STUDY

Objective limitation: identifying teachers' practices for developing digital citizenship for kindergarten children according to the standards of the International Association for Technology in Education, which included: teaching the child positive and responsible participation in the digital world, directing the child to security and legal practices when using digital technology, promoting digital culture, and critical examination to online resources; Where the child realizes the positive and negative resources, and enhances the child's ability to protect his digital personal data.

6. TERMINOLOGY OF STUDY

Practices: "Repetition and training processes for learning to occur, as it gradually strengthens the learned response through reinforcement processes, which improves performance.

The researcher defines the practices procedurally as: the behaviors, skills, and activities carried out by the kindergarten teacher to develop and provide the child with proper handling, and the optimal use of digital devices, which can be measured with the questionnaire tool prepared for that.

6.1. Digital Citizenship

"A set of standards, skills, and rules of behavior that an individual needs when dealing with technological means in order to respect himself, respect others, learn, communicate with others, protect himself, and protect others" (Al-Mallah, 2017, 26).

6.2. Standards of the International Society for Technology in Education

They are: "standard levels of technological performance set by the International Society for Technology in Education in the United States of America in the fields of school principals, teachers, trainees, and students. The standards focused on teaching and learning, and leading the digital age with its variables and transformations. (Ayad, 2017, 108).

7. RESEARCH METHODOLOGY

The study followed the descriptive survey method. This is due to its suitability to the nature of the study, and its objectives, which focused on knowing the practices of female teachers to develop digital citizenship for kindergarten children, according to the standards of the International Society for Technology in Education (ISTE).

7.1. Study Method and Tools

Study population and sample: The Najran region was chosen as the place of work of the researcher, and it is easy to access the study population and sample, as the study population was confined to kindergarten teachers in government kindergartens affiliated to the Najran Region Education Department, who numbered (298) kindergarten teachers, according to According to the statistics of the Ministry of Education, the General Administration of Education in Najran Region for the year (2022 AD), and due to the small size of the study population, the sample consisted of (298) female teachers, who represent all members of the study community.

7.2. Instrument of the Study

The questionnaire was used as a tool for collecting field study data. Because it is compatible with the problem of the current study and its objectives, as the questionnaire is an appropriate tool through which the researcher can obtain the data resulting from identifying the responses of kindergarten teachers about the practices of teachers to develop digital citizenship for kindergarten children, according to the standards of the International Association for Technology in Education.

The questionnaire was built to identify the degree of female teachers' practices for the development of digital citizenship for kindergarten children, according to the standards of the International Association for Technology in Education, by referring to the standards of the International

Association for Technology in Education related to digital citizenship, literature and previous studies related to digital citizenship, kindergartens, and reviewing its research tools. In light of this, the areas of the questionnaire were identified, and among these studies (Al-Banna, 2021; Mahrous, 2018; Al-Dosari, 2020; Ghamrawi, 2018)); Al Hammadi, 2019).

The questionnaire consisted of (24) items distributed equally over three areas, namely (the field of training the child to apply the values of digital citizenship, the practices of kindergarten teachers to teach the child digital citizenship according to the standards of the International Association for Technology in Education, the professional development of kindergarten teachers on digital citizenship).

7.3. Psychometric Characteristics of the Study Tool

To verify the validity of the tool, the researcher used content validity and structural validity, as follows:

- a. Apparent validity: The validity of the questionnaire was verified, and it was presented in its initial form to a group of arbitrators specialized in the field of early childhood and technology, and they numbered (8) arbitrators, in order to find out their opinions about the wording of its paragraphs, the extent of their clarity, the appropriateness of the paragraphs for the field to which they belong, and the appropriateness of its paragraphs, Addition, deletion, or modification of its paragraphs. And after they thanked the arbitrators, the researcher made the amendments in the light of the opinions of the arbitrators, and the questionnaire was prepared in its final form.
- B. Structural validity: Indicators of constructive validity were extracted for the paragraphs of the questionnaire by applying them to a survey sample consisting of (20) kindergarten teachers, in order to know their suitability for measuring the degree of teachers' practices to develop digital citizenship for kindergarten children according to the standards of the International Association for Technology in Education, and then the values of Pearson's Correlation Coefficient between each paragraph and the domain to which it belongs, and with the overall resolution.

The results showed that the values of the correlation coefficients of the questionnaire's paragraphs with their fields ranged between (0.43-0.57), and between (0.41-0.56) with the total resolution, and all these values were statistically significant at the level of significance ($\alpha = 0.05$), which indicates the presence of a strong correlation coefficient For the paragraphs of the questionnaire with its fields and with the overall questionnaire.

7.4. Stability

To calculate the stability of the questionnaire, the values of the stability coefficients were calculated using the Cronbach alpha method, and the method of re-application of the questionnaire on the survey sample, which is the same sample to which the first application was applied, with a time interval of two weeks between the first and second applications, and the values of the coefficient were calculated Correlation Pearson between the first and second applications. The values of the stability coefficient for the questionnaire ranged between (0.82 - 0.86), and the overall stability coefficient of the resolution was (0.84), which indicates that it has acceptable stability coefficients for the purposes of the study.

7.5. Statistical Treatments

To reach the results of the study, the researcher used the following statistical methods using the SPSS package:

- Cronbach Alpha coefficient and Pearson Correlation coefficient for calculating the stability and validity coefficients of the resolution.
- Arithmetic means and standard deviations of the study sample's responses to the items and domains of the questionnaire and to the overall questionnaire.

The researcher relied on arranging the arithmetic averages for the degree of agreement based on the upper limit of the alternatives (5), and the lower limit of the alternatives (1) and by subtracting the upper limit from the lower limit equal to (4) and then dividing the difference between the two limits

on four levels, and so the weights become as follows: (Very weak, from (1 to less than 1.80), weak, from (1.80 to less than 2.60), medium, from (2.60 to less than 3.40), high, from (3.40 to less than 4.20), high Very (4.20 to 5).

8. RESULTS OF THE STUDY

Results of the study question: "What are the teachers' practices for developing digital citizenship for kindergarten children according to the standards of the International Society for Technology in Education?"

To answer this question, the arithmetic means and standard deviations were calculated for the responses of the study sample of kindergarten teachers on the items and domains of the questionnaire and on the overall questionnaire. Table (1) shows this.

Table1. Female teachers' practices to develop digital citizenship for kindergarten children according to the standards of the International Association for Technology in Education

variables	degree	Means	SD Ranking
Kindergarten teachers' practices to teach children digital citizenship according to the standards of the International Society for Technology in Education.	High	4.09	0.766 1 st
Training the child to apply digital citizenship.	Too High	4.22	0.696 2 nd
Professional development of kindergarten teachers on digital citizenship.	High	3.91	0.8043 nd
Total	High	4.07	0.755

It is noted from Table (1) that the total score of the responses of kindergarten teachers about the practices of developing digital citizenship for kindergarten children, according to the standards of the International Society for Technology in Education, appeared in a high manner, with an arithmetic mean of (4.07), and a standard deviation of (0.755), and in view of the fields The three components of the questionnaire, we note that the second domain of the questionnaire, "Training the Child to Apply Digital Citizenship," came first in terms of the kindergarten teachers' responses, with an arithmetic mean of (4.22).

With a very high response, the first field came in second place with a high response, "Kindergarten teachers' practices to teach children digital citizenship according to the standards of the International Society for Technology in Education," which appears with an arithmetic mean (4.09) and a standard deviation (0.766), and it came in the last place in terms of responses. The third area of the questionnaire related to "professional development of kindergarten teachers about digital citizenship" through an arithmetic mean (3.91), and a standard deviation (0.804), with a high response by kindergarten teachers.

These results show high awareness and awareness of kindergarten teachers of the practices necessary to develop digital citizenship digital citizenship of kindergarten children, according to the standards of the International Association for Technology in Education, and the high awareness is shown through the high responses and approval of kindergarten teachers on the questionnaire in general, and on the field of kindergarten teachers' practices To teach the child digital citizenship, according to the standards of the International Association for Technology in Education, and the field of professional development for kindergarten teachers on digital citizenship.

The teachers' approval also appeared very high on the field of child training in the application of digital citizenship, and this is due to the increase and growing awareness among kindergarten teachers of the educational transformations taking place in the early childhood stage, the trend towards distance learning, and what the teachers sensed of their urgent need for the need to activate and practice digital citizenship. With all its diverse skills and values, it enables the child to deal responsibly and safely with digital media and the Internet.

These results are consistent with the assertions of the communicative theory and the theory of planned behavior that educating children and their learning of digital citizenship takes place when female teachers perform their roles, practices, and digital communication with children in the required manner, and work to transfer and communicate the concepts, values, and practices of digital citizenship to children in early childhood in a planned manner commensurate with their needs and ages. These results are also consistent with what was shown by two studies (Vlaanderen, 2020); (Gayatri, & Sari, 2016) from the growing awareness of female teachers, and their interest in the values and skills of digital citizenship.

The results of the current study differ with what was shown by the results of studies (Al-Dosari, 2020; Abdul Latif, 2019; Al-Hammadi, 2019; Mahrous, 2018) about the emergence of simple and often low practices of digital citizenship among kindergarten teachers, and the emergence of these practices in an uncontrolled, non-systematic manner. With the kindergarten teacher's lack of knowledge and awareness of the concepts of digital citizenship in the required manner.

9. RECOMMENDATIONS AND SUGGESTIONS

Through the findings of the study, the researcher recommends the following:

- 1. Invite the competent authorities at the Ministry of Education, who are interested in building and designing kindergarten educational curricula, to integrate and include digital citizenship concepts, skills and values in other kindergarten curricula and curricula; So that it appears in an integrated manner with those curricula.
- 2. Kindergarten teachers' preparation institutions and kindergarten departments take into account the inclusion of digital citizenship practices in accordance with the standards of the International Society for Technology in Education ISTE in their educational programs, and design specialized academic courses concerned with digital citizenship and its skills.
- 3. Building educational and guiding guides to support the practices of kindergarten teachers to teach children about digital citizenship.
- 4. Holding educational forums, seminars, and courses to inform female teachers of modern methods of training children to deal with technology in the correct ways, keeping pace with international standards of technology in a manner commensurate with the age of the child, developing preparation and professional development programs for kindergarten teachers in the light of digital citizenship, and reviewing developments in standards global education and development.
- 5. Conducting a prospective study on the obstacles to applying digital citizenship in kindergartens in the Kingdom of Saudi Arabia.
- 6. Conducting a prospective study dealing with the analysis of kindergarten curricula in the light of digital citizenship skills necessary for early childhood.

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