The Influence Of The Digital Age On Early Childhood In Jordan

Noor AlArabiat[1]

ABSTRACT

The present study aimed at identifying impact of the digital age on early childhood from the perspective of of kindergarten teachers in Jordan. The researcher of the present study adopted the descriptive analytical approach. A survey was conducted on (100) of kindergarten teachers in Amman. The study results suggest that there is a moderate effect for the digital age on early childhood. It was found that there is a statistically significant difference between the attitudes of the respondents which can be attributed to the (kindergarten curriculum, or the number of children in class). The latter differences are for the favour of the classes that have (more than 20 children) and the (local curriculum). The researcher recommends promoting awareness among parents and teachers about the way in which various electronic communication means ought to be used during the digital age. The latter means have become prevalent in all the aspects of educational life.

Keywords: Digital age, Childhood, Early Childhood, Jordan.

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[1] Doktora öğrencisi, E-Mail: ….. ORCID: 0000-0003-0649-2969

ÜRDÜN'DE DİJİTAL ÇAĞIN ERKEN ÇOCUKLUK DÖNEMİNE ETKİSİ

ÖZET

Bu çalışma, Ürdün'deki anaokulu öğretmenleri açısından dijital çağın erken çocukluk üzerindeki etkisini belirlemeyi amaçlamıştır. Bu çalışmanın araştırmacısı tanımlayıcı analitik yaklaşımı benimsemiştir. Amman'da 100 anaokulu öğretmeni ile bir anket yapıldı. Çalışma sonuçları, dijital çağın erken çocukluk dönemi üzerinde orta derecede bir etkisinin olduğunu göstermektedir.
Katılımcıların anaokulu müfredatına veya sınıftaki çocuk sayısına atfedilebilecek tutumları arasında istatistiksel olarak anlamlı bir farklılık olduğu bulunmuştur. Bahsedilen farklılıklar, 20'den fazla çocuk bulunan sınıflar ve yerel müfredat lehinedir. Araştırmacı, ebeveynler ve öğretmenler arasında dijital çağda çeşitli elektronik iletişim araçlarının nasıl kullanılması gerektiği konusunda farkındalığın artırılmasını önermektedir. Bu iletişim araçları, eğitim hayatının her alanında yaygınlaşmıştır.

Anahtar Kelimeler: Dijital Çağ, Çocukluk, Erken Çocukluk, Ürdün.

INTRODUCTION

The spread of technology led to fostering the process of developing the means of communication and electronic technologies related to social media. Such means are currently used by all the members of society, including children.

There has been a rapid development in the field of technology. The use of Internet has become prevalent. Hence, new forms of leisure activities (online videogames, social networking, etc.) emerged. Such activities are

carried out by many individuals including children and adolescents. The videogame industry become one of the largest industries in terms of money and the targeted audience. For a small minority, playing videogames is reported today as potentially problematic and/or addictive activity (Yılmaz et al, 2017).

The moral and personality development of early childhood has been affected much by the digital world. That's because the use of technologies isn't supervised by parents. Communication via cyberspace indicates the characteristic of openness. However, communication in the real world tends to be closed by children who are personal and anti-social. In the digital society, morals have been fading away. The morals that parents develop due to the lack of direct communication with others, and social media often don't show moral messages and examples of doing good and politeness towards others (Nugraheni, 2018).

The process of creating educational content for children has been transformed dramatically due to the development of technologies. For instance, children today can see examples in real life instead of reading about a specific topic or relying on a static image. They can interact with letters and words appearing on the smart screens. They can drag letters around the screen and listen to the way of pronouncing letters. However, technological developments sometimes distract children from learning (Zosh, 2016).

Craft (2012) adds that the arrival of the globalized economy into the home results in having the children and families increasingly dependent on the globalized economic context. He adds that such dependence affects the motivation of children and family to self-actualize themselves. He adds that education became accessible in all over the world due to having digital media at home and any place.

There are potential negative wellbeing-related impacts for using technology on the development of children in a sound educational environment. Such impacts affect children and the society in the future. Hence, public awareness must be promoted about this problem (Dresp-Langley, 2020).

Dahshan (2018) sheds a light on many challenges that are associated with using digital technologies. The use of digital technologies became essential in people's daily lives. The new digital data has become the future, especially considering the widespread spread of mobile phones, handheld devices and tablets, and access to the Internet. It is associated with having access to the Internet by many children without having effective supervision. The lack of an effective supervision in this regard makes using Internet more dangerous, and since the child is the hope to pursue these data in the new digital age. It should be noted that playing digital games has an impact on the developmental areas and academic development of children. Playing such games contributes to fostering the development of people's competencies and skills. Such competencies and skills include hand-eye coordination, and motor skills (Toran et al, 2016).

The use of digital technology is usually associated with a lack of attention and physical activity, aggressive behaviors, obesity, and sleep problems among children, especially among in pre-school and school-aged children. Excessive use of digital technology by children may lead to having ineffective use of time. Attention should be paid to the cognitive and emotional effects these technologies have on children's development (Agha & ZaaZa, 2021). Altun (2019) added that rapid advancements have been made in the field of technology. Due to such advancements, children today gain rich digital experiences through using various information and communication technologies at home. Such experiences are gained since the early childhood stage.

The “digital .age” is thus the period in which digital change through digitalization and digital transformation has progressed so far that digital technologies have a formative influence on people’s lives (Lengsfeld, 2019).

Learning how to use technologies has become one of the educational methods that are in line with the requirements of the age. Recent studies confirmed the value and importance of learning that by children as soon as they enter school, because it’s a mean to carry out continuous learning that accompanies a person throughout his/her life. Learning that affects personal independence, self-reliance, the ability to make decisions and take responsibility. It provides opportunities to expand non-traditional learning for children, if these interactive technologies are specifically designed with regard to children's physical, social and cognitive development (Salem and Zaki, 2009).

The early childhood stage is the first step towards the educational, practical, and cultural path, as well as personal formation and social relations. Al-Qahtani (2009) adds that what distinguishes this digital generation from other generations is its early recognition of technology and its ability to use it and benefit from it. The digital generation can use the sources of knowledge without having a human mediator.

The childhood stage is of important in the lives of children and in discovering and developing their abilities and realizing that the effects of the care and attention that the child receives at this stage continue with him throughout his life (Dahshan, 2018).

STATEMENT OF THE PROBLEM

The development of the digital age affects the development of psychology and early childhood behavior. Today, family is considered the main social block society. It plays a significant role in raising the quality of education and limiting the negative effects of technological

developments in this digital age through supervising their children (Nugraheni, 2018).

Despite the unprecedented ease of access to digital media and its growth, there is a scarcity in the research examining the changes in the family through examining the influence of digital media and the resulting effects of early exposure to media on social and cognitive development. Early research focused on the amount of time spent by a child using digital media. Existing research targets the entire family, including intentional exposure to content directed at children and unintentional exposure to background media sources (Barr, 2019).

Craft (2012) notes that there are two important elements present to some extent in children's lives which are the follows:

- Children at risk: This perspective emphasizes that there are a range of vulnerabilities in childhood that make them vulnerable from the digital world.
- Child empowerment: This perspective emphasizes the importance of empowering children for the development of education and skills.

The digital age led to having an interest in examining the consequences of using technology on the members of society, including children. It led to having an interest in examining the way in which this affects their brains and their social, emotional, cognitive, and physical development. Some research has appeared in these areas, especially brain-based research that is in its infancy (EI, 2016). The positive and negative effects of technology use clearly affect the overall development of young children (Agha & ZaaZa, 2021).

Most parents believe that their children’s use of technological devices is risky and harmful. However, such use is considered useful under the supervision of parents (Aslan & Turgut, 2023). Uzundağ et al (2022)

reported that there are several factors related to parents and home environment that affect the extent to which children spend time on technology.

In the light of the aforementioned information, the problem of the study is represented in examining the extent to which the digital age affects early childhood. The following questions can be derived from the study's problem:

Q.1: What is the impact of the digital age on early childhood from the point of view of kindergarten teachers in Amman?

Q.2: Is there any statistically significant difference between the attitudes of the respondents which can be attributed to (kindergarten curriculum, or the number of children in class)?

OBJECTIVE OF THE STUDY

The study investigated the influence of the digital age on early childhood in Jordan. It obtained data through a field survey targeting the kindergarten teachers. It aimed to:

- shed a light on the use of digital age by early childhood.
- identify the impact of the digital age on early childhood from the point of view of kindergarten teachers in Amman.
- identify whether there is any statistically significant difference between the attitudes of the respondents which can be attributed to (kindergarten curriculum, or the number of children in class)?

Limitations

The limits of the present study are mentioned below:

The spatial limits: The present study targets the kindergartens that are located in the Hashemite Kingdom of Jordan.

The temporal limits: The present study was conducted during the year 2023.

The human limits: The researcher of the present study chose a sample that consists from several kindergarten teachers working in Amman.

Previous Studies

Aslan & Turgut (2023) investigated the use of mobile devices - including smartphones and tablets - in terms of mediation types of parents who have young children. They used qualitative research methods. They used the criterion sampling method. The fact that parents of (4–7) year-old children who use mobile devices is determined as the principal criterion. 12 children whose ages range between (4–7) and their parents participated in the study. Data were obtained through child observations and making interviews with parents. It was found that children with the mediation of parental supervision have fewer problematic behaviors in the use of media and faced fewer online risks. In addition, children whose parents have general restrictive mediation are more likely to commit problematic media use behaviors. Children whose parents have active mediation are more likely to face Internet risks. It was observed that children frequently play games and watch videos on mobile devices.

Uzundağ et al (2022) explored the use of screen media by Turkish children whose ages are less than six. They explored how this use relates to child-related (e.g., temperament), parent-related (e.g., parental stress), and home-related (e.g., family size) factors via an online survey for parents (N = 1214). It was found that children spend more time using screen media in more crowded homes and if their temperament was perceived as more difficult by their parents. Their screen time is longer when their parents use more screen media, receive less support from others, and have more positive attitudes

towards technological devices. In addition, parental stress is correlated with parents' problematic use of mobile devices. That led to more interruptions in the parent-child interactions.

Al-Shammari and Ahmed (2022) explored the effectiveness of a program based on digital learning techniques in developing life skills in early childhood. The semi-experimental approach was adopted. The sample consists of (60) girls whose ages range between (7-8) years. Those students are second graders in a primary school. They were divided into two experimental and control groups equally. A test for intelligence was conducted. A program was implemented. It's based on digital learning techniques for developing life skills. The early childhood life skills scale were used as research tool. The program was applied to the experimental group only, while the conventional method was used for teaching the children of the control group. After analysing the data, it was found that the proposed program based on the use of digital learning techniques have a positive impact on the development of the life skills of children.

Agha & ZaaZa (2021) investigate the impacts of using digital technology on the development and health of children. They found that such impacts vary due to the variation in terms of the type of use, the type of device, the amount and extent of use, and the characteristics of the adolescent or child. Since children are currently growing up using highly personalized technology, their parents should exert effort to ensure that they are capable of complying with the principles of balanced nutrition, adequate physical activity, quality sleep, and positive social interaction for healthy growth and development though developing plans in accordance with age, character, health status, and the development level of their children.

Sharar (2020) aimed to explore the educational and social behavioral values of children in the light of the digital age. He aimed at assessing children's behavioral values from a social perspective. He aimed to

develop a vision for improving children's behavior in the future in kindergartens to keep pace with the times. The most important results of the study suggest that the current educational systems are keen on eradicating digital illiteracy. That affects the development of social skills. It increases the student's participation in future professions, and helps to change daily social practices and behaviors, and forms new patterns of social communication adapted to the circumstances surrounding them. Children before primary school age have a strong tendency to integrate technology into the school curricula. Thus, technology's impact is direct and positive. E-books are provided with strategies for using stories, pictures and video clips, to reach forms of technological integration. Digital devices enable children to appreciate international literature during early kindergarten stage through using means of communication, and expanding children's vocabulary.

Dresp-Langley (2020) review the environmental studies addressing the wellbeing of children in the light of the digital age. He adds that over exposure to digital environments, from abuse to addiction, now concerns even the youngest (ages 0 to 2) and triggers, as argued on the basis of clear examples herein, a chain of interdependent negative and potentially long-term metabolic changes. That shall lead to a deregulation of the serotonin and dopamine neurotransmitter pathways in the developing brain, currently associated with online activity abuse or/and internet addiction, and akin to that found in severe substance abuse syndromes.

Barr (2019) explored the way in which growing up in the digital age affects early learning and family media ecology. He adds that thecontent and context of early media exposure is likely to affect the developmental trajectories. Studies suggest that there are positive relationships between joint media engagement of age-appropriate well-designed media content and child outcomes. They suggest that there are negative relationships between technoference and child outcomes.

In this time of unprecedented technology expansion, researchers need better tools to track family media ecology and child responses and longitudinal approaches examine how developmental trajectories of media exposure affect child outcomes.

Gottschalk (2019) explores some of the literature on the effects of using technology on children in terms of their cognitive, socio-emotional, mental and physical development. He summarises the information embedded in the relevant literature. The study shows very small correlations between child outcomes and technology use. It's unclear whether technology causes those outcomes or not. Small effect sizes bring questions about real-life implications for children. Despite those issues, policymakers in various countries set guidelines for the use of technology by children. Those guidelines are often restriction focused.

Altun (2019) explored the activities of preschool children in digital environments. He explored their screen time and digital footprints and digital parenting roles within their families in Turkey. The sample consists of 628 preschool children and their parents. It was found that 97.5% of families have a television at home, 43.45% have desktop computers, and 49% have laptop computers. It was found that 98.25% of the families have smart phones, and 68% have tablets. Of the children participating in the study, 86% use information and communication technologies, like computers, smartphones or tablets. Among parents, 68% share photos of their children on digital platforms. Parents have concerns about the potential harm these technologies pose to the emotional development of children (f= 198), as well as the time-consuming and addictive nature of those technologies (f= 165). Regarding parents' opinions on the use of technology during early childhood, 45.38% of parents are against it while 33.28% are in support of it, and 21.34% remain undecided.

Nugraheni (2018) explored the impact of the digital age on early childhood education based characters. He added that developing the

characters of children is something deemed very important. That's because children are the future generation. Morals are increasingly worrisome. Hence, more attention is granted to the movement of mental revolution to promote morals in Indonesia. Exerting efforts by parents to promote morals among children serves as an effective method to prevent children from facing moral crises and committing things that are forbidden by their religion.

Yılmaz et al (2017) developed a valid and reliable Videogame Addiction Scale for Children (VASC). The data were obtained from 780 children who filled in the Videogame Addiction Scale (405 girls and 375 boys; 48.1% ranging in age from 9 to 12 years). The members of the sample were randomly divided into two sub-samples (sample 1, $n = 400$; sample 2, $n = 380$). Sample 1 was used for carrying out exploratory factor analysis (EFA) for defining the factorial structure of VASC. As a result of EFA, a four-factor structure comprising 21 items was obtained and explained 55% of the total variance (the four factors being "self-control," "reward/reinforcement," "problems," and "involvement"). The internal consistency reliability of VASC has found 0.89. Confirmatory factor analysis (CFA) was performed for confirming the factorial structure obtained by EFA in the remaining half of sample ($n = 390$). The obtained fit indices from the CFA confirmed the structure of the EFA. The 21-item VASC show good psychometric properties which can be used among Turkish schoolchildren populations.

Turgut & Aslan (2016) investigated the risks faced by the children on the web and the mediation of the parents. They used the stratified sampling method. The screening research model was used. The quantitative research methods were used. In this context, 588 children whose ages range between (11-16) were included in the study. They represent the population density of each of the 12 TRA regions determined according to the Regional Unit classification of the Turkish Statistics Institution. The data that was obtained from the children

through questionnaires were processed and analyzed. That was done through using descriptive statistics techniques. It was found that the active mediation of Internet use, such as parental involvement and activities together with children using Internet, and restrictive mediations, like allowing or disallowing internet use, and using software programs that report or filter Internet browsing, limiting the time that children spend on the Internet, ensured that the children are less exposed to risks over the Internet.

Toran et al (2016) assess the views of mothers on the children's use of digital games in Turkey. The qualitative research method was used. The research working group was composed of mothers, volunteered to participate in research with 5-years-old children that have been attending public and private kindergartens. Interviews were carried out with mothers to collect data. They are semi-structured and face to face interviews. It was found that having fun, the mother's sparing time for themselves and household chores, children's interest, using it with ease are amongst the reasons behind preferring digital games by children.

EI (2016) shed a light on a national survey conducted by the Erikson Institute, technology use by young children under age 6 was found to be almost universal. In this study of 1,000 parents across the country, the most current snapshot of technology use among children in this age group today, 85 percent of parents reported that they allow their young children to use technology. Television, smartphones, tablets and computers were the most popular. More than three quarters of these surveyed added that they use technology along with their child in a daily manner for up to 2 hours. Perhaps somewhat unanticipated, eighty six (86) percent of the parents add that they were satisfied with the way in which their young children use technology. They shed a light on the technology benefits that are related to child development and literacy. In fact, more than 50% of the parents added that they

believe that technology supports school readiness and positively affects the success achieved by students in school.

Craft (2012) shed a light on possibility thinking in the light of the digital, marketised age. He used two competing discourses, which are young people as vulnerable and at risk; or alternatively as capable and potent. The former perspective imbues anxiety about the digital revolution. The latter one embraces it as exciting and enabling. As education providers seek re-imagining themselves, neither is sufficient. Local and global challenges requires using people's creative potentials and wisdom. Drawing from work with schools, the paper argues for co-creating with students their education futures through dialogue to nurture the 4 Ps: plurality, participation, playfulness and possibilities.

The relevant studies suggest that there is a clear impact for the digital age on early childhood stage and members of society in general. They suggest that these effects are positive and negative.

METHODOLOGY

The researcher of the present study adopted the descriptive analytical approach. Researchers usually adopt the latter approach in order to offer a description for items, things and phenomena. They usually adopt the latter approach in order to offer a sensory description for things and examine variables and their dimensions.

Population

The population of the present study is represented in all the kindergarten teachers who are working at the kindergarten in Jordan.

Sample

The researcher of the present study chose a random sample. This sample was chosen from the kindergarten teachers who were working at a Jordanian kindergarten. It consists from (100) teachers. All of

them are female teachers. The questionnaire forms were passed to the members of the sample by hand. All the questionnaire forms were retrieved and considered valid for statistically analysis. Data about the Kindergarten is presented below in table No. 1

Table 1: Data about Kindergarten

Variable	Category	Frequency	Percent
Kindergarten curriculum	International	35	35.0
	Local	65	65.0
	Total	100	100.0
The number of children in class	10-20 children	77	77.0
	More than 20 children	23	23.0
	Total`	100	100.0

Instrument

The researcher of the present study aimed to explore the impact of the digital age on early childhood. To meet the study's objectives, the instrument was developed. It is represented in a questionnaire that consists of two parts. The first part is related to kindergarten (i.e. kindergarten curriculum, and the number of children in class). The second part of the questionnaire aims to obtain data about the impact of the digital age on early childhood. The impact of the digital age on early childhood targets (the children at risk, and the child empowerment).

The five-point Likert scale was used to categorize the respondents' answers to the items into categories. It consists of the following rating categories: (strongly agree, agree, neutral, disagree, and strongly disagree). These rating categories stand for the following scores respectively: (five scores, four scores, three scores, two scores and one score).

Validity of the Instrument

The validity of the instrument was checked by three experts. Those experts were asked to assess the instrument in terms of language, clarity and relevancy to the study's goals. The suggestions offered by the latter experts were taken into consideration.

Reliability of the Instrument

To measure the reliability of the study's instrument, the researcher of the present study calculated Cronbach alpha coefficient value. The overall Cronbach alpha coefficient value is 0.805. It indicates that the reliability of the instrument is high.

Statistical analysis methods:

The researcher used the SPSS software. She also used a set of statistical analysis methods such as the following:

- Frequencies and percentages
- Means and standard deviations: The researcher calculated the mean and standard deviation in order to identify the respondents' attitudes toward the impact of the digital age on early childhood.
- Cronbach alpha coefficient value: The researcher calculated this value in order to measure the reliability of the instrument.
- The multiple analysis of variance: to examine is there any statistically significant difference between the attitudes of the respondents.

The researcher of the present study used the statistical criteria shown below to classify means into levels:

2.33 – 1.00: Low level

2.34 – 3.67: Moderate level

3.68 – 5.00: High level

Research Analysis and Finding

Q1: What is the impact of the digital age on early childhood from the point of view of kindergarten teachers in Amman?

To answers the first question, the researcher of the present study calculated means and standard deviations for the two area. The latter areas are represented in (the children at risk, and the child empowerment). The latter values are presented below in table No. 2

Table 2. The arithmetic means and standard deviations of all the targeted areas

No	Variables	M	S.D	Rank	Degree

1	Children at risk	3.47	1.07	1	Moderate
2	Child empowerment	3.21	1.40	2	Moderate

Based on table (2), it was found that the attitudes of the respondents towards the impact of the digital age on early childhood from the point of view of kindergarten teachers in Amman are moderate. It was found that the means of all the study's areas are moderate. The mean of the children at risk is moderate and ranked first. It is 3.47. The mean of the child empowerment is 3.21. It is ranked second and moderate.

Children at risk

The researcher calculated means and standard deviations to identify the attitudes of the targeted kindergarten teachers towards the children at risk field. The latter values are shown in table No. 3 below:

Table 3. The attitudes of kindergarten teachers towards children at risk

No	Statements	M	S.D	Rank	Degree
1	The applications during the digital age are dangerous for children	3.46	0.90	1	Moderate
2	There is a difficulty in protecting children from the content of electronic means	3.37	0.93	2	Moderate
5	The applications during the digital age affect the mental and physical health of	3.28	0.92	3	Moderate

	children				
4	The applications during the digital age affect the social relationships of children	3.05	1.77	4	Moderate
3	Having the adults communicating with children through modern digital applications is dangerous	3.04	1.62	5	Moderate
	Total	3.47	1.07		Moderate

Based on table (3), the overall mean is 3.47. It is moderate. The mean of statement No. 1 is 3.46. It is deemed moderate and ranked first. The latter statement states the following states the following: (The applications during the digital age are dangerous for children). The mean of statement No. 3 is 3.04. It is deemed moderate and ranked last. The latter statement states the following states the following: (Having the adults communicating with children through modern digital applications is dangerous).

Child empowerment

The researcher of the present study calculated arithmetic means and standard deviations to identify the attitudes of targeted kindergarten teachers towards child empowerment level. The latter values are shown in table No. 4 below:

Table 4. The attitudes of kindergarten teachers in the Jordan towards Child empowerment

No	Statements	M	S.D	Rank	Degree
6	The digital age contributes positively to the development of the children's personalities	3.48	1.21	1	Moderate
7	Using technology facilitates the process of delivering education	3.33	1.38	2	Moderate
8	The use of electronic technologies is prevalent among children	3.21	1.49	3	Moderate
9	The technological means in the digital age expand children's knowledge	3.18	1.50	4	Moderate
10	Modern means of communication help the teacher in teaching children	3.17	1.47	5	Moderate

	Total	3.21	1.40		Moderate

Based on table (4), the overall mean is 3.21. It is moderate. The mean of statement No. 6 is 3.48. It is deemed moderate and ranked first. The latter statement states the following states the following: (The digital age contributes positively to the development of the children's personalities). The mean of statement No. 10 is 3.17. It is deemed moderate and ranked last. The latter statement states the following states the following: (Modern means of communication help the teacher in teaching children)

Q.2: Is there any statistically significant difference between the attitudes of the respondents which can be attributed to (kindergarten curriculum, or the number of children in class)?

To identify whether there is any statistically significant difference between the attitudes of the respondents, the researcher calculated arithmetic means and standard deviations. Those values are shown in table No. (5) below

Table 5. The means and standard deviations of the respondents' attitudes in accordance with kindergarten curriculum, or the number of children in class

Variable	Category	No	M	S.D
Kindergarten Curriculum	International	35	2.72	0.50
	Local	65	3.66	1.19
The number of children in class	10-20 children	77	3.12	0.97
	More than 20 children	23	4.00	1.19

Based on table (5), it appears that there are differences between the means that represent the respondents' attitudes towards the reality of the impact of the digital age on early childhood. To identify whether such differences are statistically significant or not– at the statistical

significance level of (a = 0.05)- the multiple analysis of variance was conducted. The results of the latter analysis are presented in table No. (6) below.

Table 6. The results of the multivariate analysis of variance

Source	Sum of Squares	Df	Mean Square	F	Sig.
Kindergarten curriculum	10.055	1	10.055	10.227	0.002
The number of children in class	4.445	1	4.445	4.521	0.036
Error	95.365	97	.983		
Total	1235.500	100			

Based on the results that are presented in table No. (6), the researcher found that there are statistically significant differences – at the statistical significance level of (a = 0.05)- between the respondents' attitudes which can be attributed to kindergarten curriculum for the favour of the (local curriculum). That is because sig = 0.002 which is statistically significant.

Based on the results that are presented in table No. (6), the researcher found that there are statistically significant differences – at the statistical significance level of (a = 0.05)- between the respondents' attitudes which can be attributed to the number of children in class for the favour of the classes that have (more than 20 children). That is because sig = 0.036 which is statistically significant.

Discussion

It was found that kindergarten teachers believe that there is a moderate effect for the digital age on early childhood. The arithmetic means for the targeted areas (i.e. children at risk, and child empowerment) are moderate. That clearly indicates that the impact of the digital age on children is moderate in general in many respects.

Uzundağ et al (2022) found that parents used more screen media, received less support from others, and had more positive attitudes towards technological devices. Agha & ZaaZa (2021) add that the technological developments affects childhood. Dresp-Langley (2020) adds that digital environments affect pathways in the developing brain. Barr (2019) demonstrates positive associations between joint media engagement and child outcomes.

Kindergarten teachers believe that childhood is at risk. The (children at risk) area obtained a moderate arithmetic mean. That confirms that there are several risk factors that children are exposed to due to using electronic means in general and social media applications in particular.

The results indicate that there are several risk factors that children are exposed to due to living in the digital age and the use of modern electronic means and applications that became prevalent. Examples on such means and applications include screens, digital TVs, smart boards, and phones. The risk factors associated with the digital age are represented in the negative impacts of electronic means and applications on children's wellbeing and social relationships. The parents' efforts to develop the child's personality during early life stages is an effective way to prevent children from acing moral crises and committing acts that are forbidden by their religion (Nugraheni, 2018)

It was found that kindergarten teachers believe that child empowerment is one of the areas affected to a moderate degree by the digital age. That's attributed to the impact of digital age on children's

mental and cognitive growth and the development of their traditional abilities. At the same time, technological means can have a negative or positive impact at the same time on one's personal development.

Agha & ZaaZa (2021) reported that parents should ensure that they are able to comply with the principles of balanced nutrition, quality sleep, adequate physical activity, and positive social interaction for healthy growth. Nugraheni (2018) reported that building a child's character is very important in the light of the digital age. Aslan & Turgut (2023) indicated that children with the mediation of parental supervision had fewer problematic behaviors in the use of media and faced fewer online risks.

The digital age led to the formation of (the digital families). Such families contributed to shifting from using conventional means for teaching children and raising them up from into using digital means. That's attributed to the increasing use of social media, and electronic educational materials.

It was found that there are statistically significant differences between the attitudes of the respondents which can be attributed to kindergarten curriculum. The latter differences are for the favour of the (local curriculum).

These results are attributed to the fact that most kindergartens in Jordan study the local curriculum. At the same time, the staff at schools and kindergartens use many modern electronic means in the teaching process. They have been exerting effort to keep up with the developments of the digital age.

It was found that there are statistically significant differences between the attitudes of the respondents which can be attributed to the number of children in class. The latter differences are for the favour of the class that have more than 20 children.

There are negative associations between technology expansion and child outcomes (Barr, 2019). Gottschalk (2019) shows very small correlations between technology use and child outcomes; Aslan & Turgut (2023) indicated that most parents considered their children's use of technological devices as risky and harmful, while it was considered as useful only by co-using parents. Moreover, Uzundağ et al (2022) reported that factors related to parents and the home environment are closely linked to children's screen media consumption.

Perhaps this indicates that the greater the number of children in classes, the greater the severity of the negative impact of the digital age shall be. Children may be preoccupied with using modern electronic means of education, including music, signs, games, etc., rather than meeting the main educational objective.

Conclusion

The present study aimed to examine the effect of the digital age on early childhood in Jordan. A survey was used to obtain data from kindergarten teachers in Amman. It was found that the digital age has a moderate impact on the children at risk and the empowerment of children.

Accordingly, the results of the study confirm that there is a clear impact for the digital age on the early childhood stage. They indicate that the kindergarten teachers and families play an important role in addressing the negative impacts of using the means of the digital age and benefiting from the advantages of such use.

In line with the results, the researcher recommends promoting awareness among parents and teachers about the way in which various electronic communication means ought to be used during the digital age. The latter means have become prevalent in all the aspects of educational life. She recommends promoting awareness about the

importance of exploiting smart applications in developing the cognitive abilities and personalities of children in general and children during the early childhood stage in particular.

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