ISSN: 2581-8651

Vol-2, Issue-2, Mar – Apr 2020

https://dx.doi.org/10.22161/jhed.2.2.9

# Parents' perceptions over the use of New Technologies in Education

Despoina Kaltsidou<sup>1</sup>, Charalampos Tsairidis<sup>2</sup>, Efstathios Dimitriadis<sup>3</sup>

Abstract — This article analyses parents' views on the role that Information and Communication Technology (ICT) plays in the context of pedagogy. It also refers to parents' beliefs, fears and expectations towards new technologies. It uses data that were collected from primary schools and kindergartens of the region of Eastern Macedonian and Thrace in Greece. 1450 parents participated in this research, 869 were from primary schools and 581 from kindergartens. The results showed that parents (both from primary school and kindergarten) believe that new technologies help their children in the learning process and they believe that new technologies are beneficial for their children. Despite the fact that parents accept new technologies in their children's lives only for educational purposes, they don't want their children to spend a lot of time on the computer, because they are afraid that their children will not be able to socialize properly.

Keywords — Education, Kindergarten, New technologies, Parents, Primary school.

#### I. INTRODUCTION

21st century has brought many innovations and new technologies that have transformed the structure of the society. New technologies have transformed all the collective life and modified the way that people interact with each other in their family, at school, at work and generally in his/her everyday life. According to Turkle (1997), new technologies change the way people think and the relationship with themselves and the world. Furthermore, Selwyn (2008) stated new technologies in education brings political and social changes.

Nowadays, new technologies have not only entered in our daily life, but they also entered in primary schools and kindergartens. In the early 90's information technology had entered secondary schools, but the last decade it has expanded to primary schools and kindergartens.

This new technological era has brought a lot of insecurity to teachers and parents who are two of the three main factors in the process of learning. On the one hand some teachers are not qualified to teach children new technologies, whereas other teachers are afraid to use them because of their negative attitudes towards new technologies. According to Loveless (2011) "good teachers are intellectually curious about pedagogy". On the

other hand some parents, feel helpless at the beginning of this educational era, whereas others help children familiarize this new technological achievement, which will help them in their educational and professional process (Anastasiades & Vitalaki, 2004).

According to Sutherland et al. (2000), three are the main factors that can help in the adoption of new technologies at school. These factors are children, teachers and parents. From this triangle, the only part that embraces new technologies without fear and second thoughts, are the children. This doesn't happen to parents and teachers. According to Makrakis (2005), new technologies require new teacher roles, new pedagogies and new approaches to teacher training. A literature review that was published by Webb & Cox (2004), referred to pedagogy and the use of ICT in learning and teaching. The main questions were "what", "how" and "why" ICT should be implemented in teaching and learning. The same questions remain crucial and concern parents and teachers some of whom do not understand why new technologies are implemented at schools.

Numerous studies have focused on the teacher's opinions, fears, beliefs and attitudes towards new technologies, but only a few have focused on parents attitudes towards them. According to Kong (2008), parents' support and acceptance could be a critical foundation for

<sup>&</sup>lt;sup>1,2</sup>Department of Social Work, Democritus University of Thrace, Komotini, Greece

<sup>&</sup>lt;sup>3</sup>Department of Management Science and Technology, International Hellenic University, Kavala, Greece

ISSN: 2581-8651 Vol-2, Issue-2, Mar – Apr 2020

https://dx.doi.org/10.22161/jhed.2.2.9

the successful implementation of Information Communication Technology. Furthermore Perera et al., (2014), referred that positive parental involvement towards new technologies are beneficial for children's science achievements.

This survey focuses on parents believes about the importance of computers in their children's lives, the qualifications that new technologies can bring to their children's future development and academic process. Furthermore, this survey focuses on the impact that new technologies will have to their children when they use them in the educational process as a new learning method or as a teaching tool and last but not least how much new technologies affect their relationships towards family and friends.

#### II. LITERATURE REVIEW

While children embrace anything "new" that comes into their life with the use of new technologies, the duty of parents, as well as teachers, is to prepare children for entering into the new world of new technologies. In the past, parents learned how to use computers when they became adults, so they did not receive any guidance either from their parents or from their teachers when they were children. Parents that do not know how to use new technologies are unable to guide and develop a mutual understanding with children in new technologies. More reactions and difficulties in the use of new technologies have been observed in smaller traditional societies. According to Rogers's theory (1983), people who are innovative and quick to adopt new technologies are usually younger, well-educated and come from higher socio-economic households. Furthermore, many researchers suggest that socio-economic status is a very important factor for the ICT adoption (Brandtzaeg, 2010; Correa et al., 2010; Livingstone, 2007).

Parents who lack the knowledge of technology cannot guide their children nor understand their children's need towards the use of computers. There is a reaction in smaller traditional societies because some parents feel helpless at the beginning of this educational era, and others wholeheartedly consider it as an important part of their children's development process.

The same concern exists among scientists who are separated to opponents and defenders (or technophiles) new technologies. Opponents of ICT Usage believe that they poses risks such as "social isolation", "substitution of other activities" and "deprivation of childhood" when used at an early age. On the other hand supporters, as Guernsey

(2000) stated that, a significant number of parents and teachers believe that computers are highly important for the education of young children and in their future success.

According to Corbett & Willms (2002), students that are raised in rural households may use less new technologies for many reasons, such as the lack of financing and the lack of parental interest for new technologies. Children, whose parents had more prestigious jobs and were well educated, were more likely to have computers and internet connection at home.

In a research that was held by Ozdamli & Yildiz (2013), showed that the vast majority of parents that participated in the research had computers at home, were in position to use new technologies and were able to use internet. According to the results obtained, parents could be characterized as computer and internet literate, and showed positive attitude towards the use of mobile phones for educational purposes. In cases that parents want to reward or discipline their children they use new technologies, however books or toys are also frequently used tools.

From the literature review of a bibliography and from the relevant research, it is stated that parents recognize the positive effects that new technologies can bring to their children's lives, however they are concerned by the negative effects of new technologies in their lives. More specifically, when it comes to video games, parents have a rather negative than a positive view, because it harms children in reading, maths, speaking skills, creativity, attitude, physical activity and disturbance of sleep.

It is also reported that by using new technologies children stop exercising and socializing. At the same time some parents are concerned about their children becoming addicted to new media or being exposed to media that they do not approve of. Parents believe that new technologies as an educational tool have a positive effect on children but do not have the same opinion as far as their social skills and attitudes.

## III. INFORMATION COMMUNICATION TECHNOLOGY IN GREECE

In order to understand the parents, teachers and students' attitude and opinion towards new technologies, the Greek educational context should be studied. The initiatives that have been implemented by the Ministry of Education, its scientific and administrative service (Pedagogical Institute) along with the Academic Research Institute on Computer Technology (ICT), Lifelong

Vol-2, Issue-2, Mar – Apr 2020

https://dx.doi.org/10.22161/jhed.2.2.9

Learning and Religious Affairs in Greece should also be taken into consideration.

ICT entered the Greek public schools in 1996, whereas other European countries have adapted new technologies from the early 90's. The first program that took place in the Greek reality was "Odysseia - Hellenic Schools in the Information Society". This program had two main goals. The first one was to set up the infrastructure and at the same time to train teachers and give them the needed support in order to develop the educational material that is essential in their job. The second goal was to make students and teachers realise that Information Communication Technologies are not an independent scientific domain, but an educational tool that they can be used in their daily life in order to communicate, learn and teach.

The second program that took place at the period of 2000-2006 was "Operational Program Information Society" (OPIS), which was funded by the European Commission. The main goal of this program was to affect different sectors of the daily life, such as economy, society and education, and at the same time to transact the educational system to the digital era.

After the end of Odysseia in 2001 and Information Society, the Ministry of Education continued to fund ICTs, and applied a variety of actions which had to do with the installations, supply, and support of hardware. The most important thing that the Ministry of education had to focus on was teacher's training, because the teachers' were not familiar with new technologies, would lead to acceptance and adoption of new technologies in their daily life and work. This way new technology will be implemented at schools and would be exploited by the teachers.

In order to support this goal, a number of training and retraining programs have been implemented the last decades in national and European level. The Ministry of education has spent 85 million euro in teachers' training, which is half of the budget of the Information Society Office program. This money was spent from 2000 until 2006.

Greece, as a member of the European Union, takes part in many European programs such as Socrates, e-Content, Grundtvig, Comenius, Lingua and Minerva. Nowadays, they are interested directly in areas such as the Education and Training 2010 program, the European Qualifications Framework, the New Technologies policy areas, and the relevant areas of the Lifelong Learning Program 2007-2013. These European programs have an aim to promote both the European and international

educational cooperation and the European and international dimension of education.

#### IV. RESEARCH METHODOLOGY

#### 4.1 Population and Sample

In order to achieve the aim of this study, a research was performed using a questionnaire as tool. The target population of this research was the children's parents that attend the 1st grade and kindergarten, in the school year of 2013-2014, in the region of Eastern Macedonia and Thrace in Greece. The questionnaire was administrated to the primary schools and kindergartens, after the consent of the Ministry of Education and the respondents, and was completed by only one of the two parents. The survey instrument was handed to the principals of each school, and upon completion they were collected by the researcher. 2286 questionnaires were distributed to parents and the total amount that was handed back and was used in the analysis, after the exclusion of some which had not been completed or filled inaccurately, were 1450 questionnaires (response rate was 63.43%). From this amount, 869 (59.93%) questionnaires were from primary schools and 581 (40.07%) from kindergartens.

From the demographic data of parents, 69.10% that answered the questionnaire were mothers, whereas only 30.10% were fathers. The mean age for fathers is 40.20 years old and for mothers 36.70 years old. The educational level showed that both fathers and mothers have graduated from University, with a percentage of 42.00% and 42.40%, respectively. Furthermore, both genders hold a master degree, where the exact percentages are 7.70% of mothers and 7.20% of fathers, and last 37.20% of mothers and 31.60% of fathers have graduated from high school. Marital status showed that both fathers (97.10%) and mothers (90.80%) were married. As far as the citizenship is concerned, 94.90% of the total sample was Greek, whereas only 5.10% were people from other counties. From the 5.10% of foreigners, 48.60% was from Albania, 14.80% was from Russia, 8.10% from Armenia, 6.70% from Bulgaria and 4.05% from Australia.

#### 4.2. Questionnaire's Description

The questionnaire consists of five parts. The first part of the questionnaire elicits parental demographic data that consists of six questions, such as gender, age education, marital status, affiliation and nationality. The second part consists of five questions that concern the frequency that new technology is being used by the parents, if they own a computer and an internet connection, and how useful it is. Indicatively parents were asked if they

ISSN: 2581-8651 Vol-2, Issue-2, Mar – Apr 2020

https://dx.doi.org/10.22161/jhed.2.2.9

have a computer at home with internet connection, how often they use a computer, how many hours they spend on a computer, and which are the main reasons that they are using it for. The third part consists of four questions that concern the fears and the worries that parents have when their children use new technologies. Additionally, parents were asked how often their children use new technologies, if they guide them in the sites they should surf, if they are present when their children use new technologies, and how worried they are when their children use new technologies.

The fourth part consists of four questions that concern parents' opinion about new technologies and their contribution to knowledge (as an educational tool). The first question examines if children learn by the use of new technologies (based on parents' opinion). The second question consists of eight items, five of which examine the positive effect that new technologies have on their children, whereas the last three items examine the negative effect that new technologies may have upon their children. These questions were adopted from the questionnaire of Tsitouridou & Vryzas (2007), whereas the following questions were adopted from a survey that it was held by McPake et al. (2005). The forth question which consists of five items, examines the parents' opinion towards the benefits that new technologies can offer to the learning process, and the last question concerns the rules that parents should impose to their children concerning the use of new technologies.. Finally, the fifth part consists of four general questions that concern children and new technologies, more thoroughly the frequency and the reasons that the children use new technologies, with whom and if they own a technological device. Both fourth and fifth part items were measured in a 5 point Likert scale.

#### 4.3. Instruments Validation

The fourth and fifth part of the questionnaire, which consists of 13 items, refers to the parents' opinion about the usefulness of the New Technologies, and it was tested for content validity and construct validity. As far as the content validity, all the questions were adopted from previous researches and cover the subject of the current research. Moreover, a pilot test in a small group of parents and academics was performed, in order to confirm the validity and the appropriateness of the instrument. A factor analysis and reliability analysis were performed in order to test the construct validity. The Principal Component Method and the Varimax method of Orthogonal Rotation were selected for the factor analysis. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were used to test the appropriateness of factor analysis on the data. Sharma (1996) suggests that KMO has to be greater than 0.800. The extraction of the factors was done by calculating the eigenvalues of the correlation matrix. KMO measure of 0.802 and the significance of Bartlett's test ( $\chi 2 = 5869.432$ , sig.=0.000<0.001) indicate that the data set is suitable for this study. According to the information of the rotated component matrix, three factors with eigenvalues greater than 1 are identified, which accounted for 58.008% of the variations present in the original variables. The three factors are respectively named "Positive Effect", "Negative Effect" and "Beliefs". The factor loading of each item can be seen in the range of 0.524 to 0.900, much greater than the acceptable value (0.500). Therefore, it can be concluded that the forth and fifth part of the questionnaire, consisting of the 13 items, is construct valid (Table 1).

Table 1. Factor analysis

Do you believe that New Technologies:	Loadings	Factors	
Improve children's school performance	0.771		
Broaden their range of interest	0.807	Positive Impact	
Stimulate children	0.779		
Make children's lives easier	0.680	24.553%	
Consist a new teaching method	0.627		
Isolate children	0.877	Negative Impact 19.143%	
Damage the internal relationships	0.900		
Damage the health and the development of the children	0.807		
Do you believe that:			
Children should apply new technologies at school	0.604	Beliefs	
	<del>-</del>		

ISSN: 2581-8651

Vol-2, Issue-2, Mar – Apr 2020 https://dx.doi.org/10.22161/jhed.2.2.9

Playing with ICT helps children learn	0.524	14.312%	
Parents should help children learn to use ICT	0.613		
Parents should control the amount of time that children spend with ICT	0.624		
Children familiarize quicker than their parents in the use of ICT	0.588		

KMO = 0.802

**Bartlett's Test of Sphericity** = 5869.432

**d.f.** = 78

sig. = 0.000

After the identification of the three factors, a reliability analysis was performed and the Cronbach's alpha index for the factors "Positive effect", "Negative effect" was respectively 0.812 and 0.840, better than the suggested ones by Nunnally (1978) lower limit of 0.70. Only the Cronbach's alpha index of the factor "Beliefs" (0.694) is marginally accepted. This shows that each factor has good internal consistency (Table 2).

Table 2. Reliability analysis

Factor	Cronbach's alpha		
Positive Effect	0.812		
Negative Effect	0.840		
Beliefs	0.694		

#### V. RESULTS

#### 5.1. Basic Statistics

In the second part of the questionnaire concerning the frequency that parents use new technologies, resulted that 91.20% have a computer at home, as well as an internet connection (88.60%). 35.1% use the computer everyday 37.70% 4-6 times per week, and 18.40% 2-3 times a week. In order to examine which gender uses the computer more frequently, a crosstabulation for gender and frequency was realized. The results showed that fathers use the computer 4-6 times per week (38.70%) whereas mothers 37.50%, 37.70% of fathers use it everyday compared to 33.90% of mothers. 19.30% of mothers use it 2-3 times a week while fathers 15.90%. However, the frequency of use and the gender of the parents are independent variables as the value of Pearson's chi square test of independence (4.091) is not statistically significant (sig.=0.252). In the question of how many hours they spend on the computer, 36.20% from the total sample answered 1-3 hours per week, from which 40.70% were mothers and 26.00% were fathers. 44.40% of the total sample answered 4-10 hours per week, from which 46.90% were men and 43.20% were women. 14.90% from the total sample answered more than 10 hours per week, from which 22.40% were fathers and 11.60% were mothers. The hours that parents use new technologies and the gender, are dependent variables, as the value of Pearson's chi square test is 39.569, that is statistically significant (sig.<0.001), without, however, strong dependency (Phi=0.172). In the last question of this part regarding the usefulness of computer, 81.10% of the total sample answered for information (81.40% were fathers and 80.90% were mothers), 51.10% answered for educational purposes (52.40% were fathers and 50.40% were mothers), 41.10% answered for entertainment (42.40% were fathers and 41.00% were mothers), and finally 11.50% answered for their work (14.80% were fathers and 10.10% were mothers).

In the third part, 6.00%, of parents allow their children to use computer "very often" 29.20% "often", 43.70% of the parents of primary school allow their children to use a computer "sometimes", 10.60% "rarely" and 10.50% "very rarely". On the other hand 4.90% of parents of kindergarten allow their children to use the computer "very often", 26.30% "often", 38.10% "sometimes", 12.80% "rarely" and 17.90% "very rarely". 91.00% of the parents of primary school stated that they advice their children in which site to surf, while for parents of kindergarten reaches 92.20%. Parents of kindergarten (92.60%) and primary school (91.60%) answered that they are present when their children use the computer.

The results showed that parents of kindergarten are very worried when their children use new technologies, 11.30% answered "always", 26.00% answered "very often" and, 37.90% were "neutral", 16.90% "rarely" and 7.90% "never". On the contrary, parents of primary schools are found to be less worried than kindergarten parents, with percentages of 7.30% "always", 23.10% "very often", 42.20% "sometimes", 17.50% "rarely" and 9.90% "never". Furthermore, Pearson's chi square test (10.398) is



Vol-2, Issue-2, Mar – Apr 2020

https://dx.doi.org/10.22161/jhed.2.2.9

statistically significant (sig.=0.034), indicating that the age difference is a critical factor for parents. They are more worried about the use of new technologies when their children are younger than when they are older. The fourth part of the questionnaire describes parents' opinion about new technologies and their contribution to knowledge (as an educational tool), and the importance of new technologies in learning.

15.80% "totally agree" that Children learn by the use of new technologies, 67.60% of the respondents "agree" and 13.50% were "neutral". These results show that 83.40% of parents (both from primary school and kindergarten) believe that new technologies help their children in the learning process.

The second question of the fourth part, consisting of 8 items, was divided in two parts. The first part was examining parents' attitudes towards new technologies and their beliefs based on questions, such as "do you believe that new technologies improve your children's school performance", "expand their interests", "stimulate them", "make their life easier", and if they considered it as a new educational method. The results showed that parents are positive towards new technologies and they believe that new technologies are beneficial for their children. 73.20% stated from a medium extent to a great extent that new technologies improve their school performance. 82.30% from medium to a great extent that broadens their knowledge, 85.70% stated that it stimulates them, and 88.80% stated that new technologies are a new teaching method. The second part consists of three questions that measure how much they agree to the following statements: "New technologies can isolate children", "harm their personal relationships", and "ruin their health and development". As far as the negative effects of new technologies upon children, parents believe that new technologies harm children's social life and the way they grow up 90.20% of the parents stated that new technologies isolate them, 85.70% believe that they harm their personal relationship, and 67.30% believe that they ruin the child's health and development. Although parents believe that new technologies can harm their children socially, they answer with a percentage of 83.00% that new technologies should be applied at school, 18.10% stated "I totally agree", 55.90% answered "I agree to use new technologies as games in order to help their children to learn easier", whereas 18.30% were "neutral".

In the question that concerned if parents should help their children in the use of new technologies, 30.30% that they totally agree, 58.70% answered that they agree, and only 8,70% were neutral. Also, in the question if

parents should check the time that their children spend on the computer, 84.30% stated that they totally agree whereas 15.30% stated that they agree.

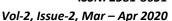
Children familiarize faster than their parents, while 68.00% answered totally agree and 26.20% that they agree. The results show that parents accept new technologies as a teaching tool and as a new teaching method that will help their children to improve their knowledge, but they do not want their children to overuse new technologies especially when they are absent. In the question "are there any rules that your children should follow in order to use new technologies?", 81.80% of the sample stated that there have to be strict rules that the children should obey if they want to use new technologies, 16.50% stated that there are rules but children do not follow them, and only 1.70% stated that there are no rules.

It could be concluded from the forth part that parents accept new technologies in their children's lives only for educational reasons apart from that they don't want their children to spend a lot of time on the computer, because they are afraid that their children will not be able to socialize properly. In the fifth part it is measured the frequency that children use new technologies, with whom, which activities they perform on computers and if their children own a gadget.

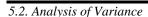
40.70% answered that their children use new technologies 2-3 times a week. 41.30% were parents with children in primary schools, whereas 39.70% were parents with children in kindergarten. 26.20% answered that their children use new technologies once a week, 28.20% were from kindergarten and 24.90% were from primary schools, and 4.10% answered 4 - 6 times a week, where 31.50% were from kindergarten and 19.64% from primary schools.

The activity which is preferred mostly by the children is to play games 81.80%. Activities that follow are watching DVD and videos (65.70%), using a learning program (38.20%), typing texts on computers (14.70%), and visiting sites (13.40%). Also, 66.50% of the parents stated that when their children perform the above mentioned activities, do it in their presence, 38.30% with their siblings, 20.80% alone, 8.70% with the presence of another adult, and last only 3.80% with their friends.

Finally, parents stated their children own game devices, 58.40% such as play stations, game boys etc, 45.40% own tablets, 12.70% own mobile phones without the a phone card. That means that 76.60% of the total sample owns a device, whereas 23.40% does not own one.







In order to examine the hypotheses, if parents' opinion (about the positive and negative impact of ICT) is affected by their personal characteristics, an Analysis of Variance has been performed. The results showed that parents' gender does not affect their opinion concerning the positive impact by the use of new technologies (F=1.560 and sig.=0.212>0.05). However, the negative impact is affected by their gender (F=49.115 and sig.=0.000<0.001). In particular, mothers are found to be more worried about the negative effects that ICT may have on their children. The parents' level of education affects their opinion only towards the negative impact of the use of ICT. Parents (with a bachelor and a master degree) tend to believe that the negative impact that new technologies may have on their children are more important (F=7.203 and sig.=0.000<0.001).

Greek citizens believe in the positive impact that new technologies can bring to their children's lives more than citizens from other countries (living in Greece) (F=11.995 and sig.=0.001<0.05). They also believe more than the citizens of other countries in the negative impact of new technologies (F=25.661 and sig.=0.000<0.001). Parents that have new technologies at home understand and value more the positive impact and the usefulness of new technologies (F=7.171 and sig.=0.007<0.05). Parents that have internet connection at home, evaluate more positively the positive effects (F=7.294 and sig.=0.007<0.05), whereas at the same time are very worried about the negative effects (F=17.583 and sig.=0.000<0.001).

Table 3. Analysis of Variance by Impact

Impact	Parents Gender	Level of Education	Nationality	Owners of P.C.	Internet Connection
Positive	F = 1.560	F = 1.613	F = 11.995	F = 7.171	F = 17.583
	sig. = 0.212	sig. = 0.168	sig. = $0.001^{**}$	sig. = $0.007^{**}$	$sig. = 0.000^{***}$
Negative	F=49.115	F = 7.203	F = 25.661	F = 2.954	F = 7.294
	sig.=0.000***	sig. = $0.000^{***}$	sig.=0.000***	sig. = 0.086	sig. = $0.007^{**}$

<sup>\*\*\*</sup> Significant at the 0.001 level

An Analysis of Variance has been done to examine the hypothesis that the beliefs of the parents about the usefulness of ICT are affected by their personal characteristics. Thus, the results indicate that the higher the parents' education level is the more agreeable they are to the use of ICT in the learning process (F=9.208 and sig.=0.000<0.001). Greek citizens appreciate more the usefulness of ICT in the learning process than people from other countries that live in Greece (F=75.028 and sig.=0.000<0.001). Parents that own a computer at home (F=43.376 and sig.=0.000<0.001) and have an internet connection (F=58.307 and sig.=0.000<0.001) are more positive towards the use of ICT as a learning method.

Table 4. Analysis of Variance by Beliefs

	Level of Education	Nationality	Owners of P.C.	Internet Connection
D -1' - 6-	F=9.208	F=75.028	F =43.376	F=58.307
Beliefs	sig.=0.000***	sig.=0.000***	sig.=0.000***	sig.=0.000***

<sup>\*\*\*</sup> Significant at the 0.001 level

#### VI. **CONCLUSION**

The results of the survey showed that parents have computers at home and an internet connection. Both genders use new technologies very often, and as far as the usefulness of new technology is concerned, they stated that they are being used for information, for educational reasons, for entertainment and for work.

Both parents stated that they allow their children to interact with new technologies. Primary school parents seemed to be more familiar with this concept, whereas kindergarten parents seem to be more conservative towards the use of new technologies from such an early age. Kindergarten parents seem to be more worried than primary school parents, when their children use new technologies. The results of this question are logical, because children that attend kindergarten are younger than



Vol-2, Issue-2, Mar – Apr 2020

https://dx.doi.org/10.22161/jhed.2.2.9

children in primary school, and their parents feel more insecure when their children use new technologies in such young age. These results show that the age difference is a critical factor for parents. They are more worried about the use of new technologies when their children are younger.

Parents (both from primary school kindergarten) believe that new technologies help their children in the learning process. The results showed that parents are positive towards new technologies and they believe that new technologies are beneficial for their children. The results of this study are consistent with the findings of Blanchard (2010), and Scooter et al. (2001), where parents stated that the use of educational media could be used for children's educational development. In a research that was held by Davies (2011) parents encouraged their children to become familiar with new technologies in order to ensure that they were prepared for future demands of the workplace and, given the perceived importance of such potential benefits. Moreover, parents that participated in the survey of Downey et al. (2004) stated that "technology helps children to develop new skills and can help with child's developing knowledge". As far as the negative effects of new technologies upon children, parents believe that new technologies harm children's social life and the way that they grow up. The same results were found in the studies of Tsitouridou & Vryzas (2007), where parents seemed to be more negative to the use of computer when it comes to the interpersonal relationship of their children. The same finding is consistent with the findings of a national survey held by Northwestern University (2013), where parents stated that the use of technology has a bad impact on their children's social skills and behavior. On the contrary researches of Papadimitriou (2010), Rhee & Bhavnagri (1991), Bergin et al. (1993), and Clements (1994), showed that new technologies do not isolate children. Children wish to collaborate with other children when they use new technologies, and that shy children or children that are not members of a group, have the chance to communicate better with their school mates when they use new technologies. Parents also stated that they want new technologies in their children's school, because children can learn by using them. Also, they stated that parents should get involved with their children when they use the computers, by monitoring the time that they let them use any kind of new technologies. This finding is consistent with the finding of Anastasiades et al. (2008), where it was stated that "parents who use computer technology with their children, may be more likely to use the interactive new learning environments efficiently". The same results were found in a survey of O'Hara (2011),

where parents made a big impact on children's learning when they used ICT together. Also, they pointed out that children have to follow strict rules when it comes to new technologies. This finding is consistent with a survey that was held by Northwestern University (2013), where parents found to be "very" or "somewhat" concerned about their children's health and safety, fitness and nutrition when they overuse new technologies. They also stated that parents are concerned as their children get older, because they are afraid of their becoming addicted to new media or exposed to media they do not approve of. According to Liu et al. (2012), when parental norms become consistent with the child's usage of internet, the probability of the child developing problems due to the wide use of internet is limited. Finally, a research that was held by Hollingworth et al. (2009) showed that most parents hold a supervisory role, because they feel technologically incompetent and because of the lack of pedagogical know-how.

As far as the frequency that children use new technologies, the results showed that new technologies are being used more frequently by kindergarten children than primary schools children. The favorite activity of both categories is to play games, watch video and use a learning program. Children, not only use new technologies, but they also own some, such as game devices, tablets and mobile phones. Last, but not least, the research showed that children are quicker than their parents in familiarizing the use and adoption of new technologies.

Concluding, it could be said that parents accept new technologies in their children's lives only for educational purposes, apart from that they don't want their children to spend a lot of time on the computer, because they are afraid that their children will not be able to socialize properly. Parents want their children to have the chance to read a book, play in a playground, go for a walk, run, play hide and seek, instead of staying indoors and using new technologies. Parents are afraid that new technologies could harm their children in their imagination, creativity and emotions. Parents should understand that everything has to do with the program that their children use, and how many hours they spend on it. For example, Drill and Practice programs are only for exercise and do not contribute to the development of imagination. Openended programs are considered to be appropriate for the development of imagination, creativity and invention. As far as the lack of feeling is concerned, Shade (1994) stated that when children use new technologies they feel happy and they are very entertained.

ISSN: 2581-8651

Vol-2, Issue-2, Mar – Apr 2020

https://dx.doi.org/10.22161/jhed.2.2.9

#### **REFERENCES**

- [1] Anastasiades, P., & Vitalaki, E. (2004). Information communication technologies in elementary schools: Why the parents do concern? Presented at the European Conference on Educational Research, ECER 2004, EERA (European Educational Research Association), University of Crete, Rethymnon, Greece, September 22-25, 2004.
- [2] Anastasiades, P., Vitalaki, E., & Gertzakis, N. (2008). Collaborative learning activities at a distance via interactive videoconferencing in elementary schools: Parents' attitudes. Computers & Education, 50, 1527-1539.
- [3] Bergin, D., Ford, M., & Hess, R. (1993). Patterns of motivation and social behavior associated with microcomputer use of young children. Journal of Educational Psychology, 85(3), 437-445.
- [4] Blanchard, J. (2010). The digital world of young children: Impact on emergent Literacy. White Paper by Pearson Foundation.
- [5] Brandtzaeg, P. B. (2010). Towards a unified media-user typology (MUT): A metaanalysis and review of the research literature on media-user typologies. Computers in Human Behaviour, 26, 940–956.
- [6] Clements, D. (1994). The uniqueness of the computer as a learning tool: Insights from research and practice. Young children in a Technological Age. Washington, D.C.: NAYEC.
- [7] Corbett, B. A., & Willms, J. D. (2002). Information and Communication Technology: Access and use. Education Quarterly Review, 8(4), 8-15.
- [8] Correa, T., Hinsley, A. W., & De Zuniga, H. G. (2010). Who interacts on the Web?: The intersection of users' personality and social media use. Computers in Human Behavior, 26, 247–253.
- [9] Davies, C. (2011). Digitally strategic: how young people respond to parental views about the use of technology for learning in the home. Journal of Computer Assisted Learning, 324–335.
- [10] Downey, S., Noirin, H., & O' Neil, B. (2004). Play and Technology for children aged 4-12. Centre for Social and Educational Research Dublin Institute of Technology, Office of the Minister for Children.
- [11] Guernsey, L. (2000). O.K., schools are wired, Now what? The New York Times, p. C32, January, 9.
- [12] Hollingworth, S., Allen, K., Kuyok, K. A., Mansaray, A., & Rose, A. (2009). An exploration of parent's engagement with their children's learning. Becta (Research Report).
- [13] Kong, S. C. (2008). A curriculum framework for implementing information technology in school education to foster information literacy. Computers and Education, 51, 129–141.
- [14] Liu, Q.-X., Fang, X.-Y., Deng, L.-Y., & Zhang, J.-T. (2012). Parent–adolescent communication, parental internet use and internet-specific norms and pathological internet use among Chinese adolescents. Computers in Human Behavior, 28, 1269–1275.

- [15] Livingstone, S. (2007). Strategies of parental regulation in the media-rich home. Computers in Human Behavior, 23, 920–941.
- [16] Loveless, A. (2011). Didactic analysis as a creative process: Pedagogy for creativity with digital tools. In B. Hudson & M.A. Meyer (Eds.), Beyond fragmentation: Didactics, learning and teaching in Europe (pp. 239–251). Opladen: Verlag Barbara Budrich.
- [17] Makrakis, V. (2005). Training teachers for new roles in the new era: Experiences from the united Arab Emirates ICT program. In Th. Tzimoyiannis (Ed.), Proceedings of the 3rd Pan-Hellenic Congress in Didactics of Information and Communication Technologies (ICT) (pp. 1-6). University of Peloponnesus: Korinthos.
- [18] McPake, J., Stephen, C., Plowman, L. Sime, D., & Downey, S. (2005). Already at a disadvantage? ICT in the home and children's preparation for primary school. Becta (ICT Research Bursaries).
- [19] Northwestern University (2013). Parenting in the Age of Digital Technology. A National Survey. Center on Media and Human Development School of Communication, Northwestern University.
- [20] Nunnally, J.C. (1978). Psychometric Theory, 2nd ed. New York, McGraw-Hill.
- [21] O'Hara, M. (2011). Young Children's ICT experiences in the home: Some parental perspectives. Journal of Early Childhood Research, 9, 220-231.
- [22] Ozdamli, F., & Yildiz, P. E. (2013). Parents' Views Towards Improve Parent – School Collaboration with Mobile Technologies. Journal of Social and Behavioral Sciences, 131, 361-366.
- [23] Papadimitriou E. (2010). Is Dangerous or beneficial the use of New technologies in kindergarten? Educational News, A(2), 20-27.
- [24] Perera, L.D.H., Bomhoff, E.J. & Lee, G.H.Y. (2014). Parents' attitudes towards science and their children's science achievement. Business and Economics, Monash University, 1-29.
- [25] Rhee, M., & Bhavnagri, N. (1991). Four year-old children's peer interactions when playing with a computer. Wayne State University, (ERIC Document Reproduction Services No. ED 342 466).
- [26] Rogers, M. (1983). Diffusion of innovations. (3rd ed.) New York. Macmillan Publishing Company, Inc.
- [27] Shade, D. (1994). Computers and young children: Software types, social contexts, gender, age, and emotional responses. Journal of Computing in Childhood Education, 5(2), 177-209.
- [28] Sharma, S. (1996). Applied multivariate techniques. USA, John Wiley and Sons Inc.
- [29] Selwyn, N. (2008). From state-of-the-art to state-of-the-actual? Introduction to a special issue. Technology, Pedagogy and Education, 17, 83–88.
- [30] Sutherland, R., Facer, K., Furlong, R., & Furlong, J. (2000).
  A new environment in education? Computer in the home.
  Computers and Education, 34, 195-212.

### Journal of Humanities and Education Development (JHED)

ISSN: 2581-8651

Vol-2, Issue-2, Mar – Apr 2020

https://dx.doi.org/10.22161/jhed.2.2.9

- [31] Tsitouridou, M., & Vryzas, K. (2007). The prospect of integrating ICT into the education of young children: the views of Greek early childhood teachers. European Journal of Teacher Education, 27(1), 29-45.
- [32] Turkle, S. (1997). Life on the screen: Identity in the Age of the Internet. Phoenix, London.
- [33] Van Scooter, J., Ellis, D., & Railsback, J. (2001). Laboratory, Technology in early childhood education: Finding the balance. By request, Northwest Regional Educational Laboratory. Portland, Oregon.
- [34] Webb, M., & Cox, M. (2004). A review of pedagogy related to ICT. Technology, Pedagogy and Education, 13, 235–286.