

Examination of tablet usage by 4 years old pre-school student

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Abstract

Accurate usage of tablet etc. devices in growth period is essential in terms of development performance. Tablet usage for education and teaching supports audio-visual memory; however, an examination of the consequences of continued usage reveals serious problems. Technology is essential in terms of communication and reaching information in the life of every individual regardless of their age and period. However, especially for small children, tablet and other technological devices should be used under the surveillance of parents. In terms of development, tablets are used in education in areas such as linguistic, social, cognitive and academic development. However, it is known that using them for long hours has negative impacts on the development of children. In this paper, interviews were held with 10 mothers whose children are going to pre-school institutions. The research used face-to-face interview technique. The purpose of the study is to examine the attitude of mothers as regards usage of tablets by their children. During the interviews with mothers, the "interview form prepared for tablet usage" was used which was prepared by the researcher this form was prepared by the researcher. It consisted of question and answer technique mothers who constituted the study group were interviewed in person and analysis were made according to the obtained answers. Sub-theme was created and analysis were concluded based on these data. Obtained findings show that mothers have both negative and positive attitude as regards tablet usage. They think that tablets are effective in teaching their children important concepts, but are also worried that it can lead to addiction and problems in their relations with peers.

Keywords: Pre-school, tablet usage, mothers, subtheme, technology.

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Introduction

Technology supports most education studies and facilitates learning. Methods and techniques used in education are changing with the development and changes in technology and new schools are always emerging. Using technology in an effective and suitable way is critical in terms of obtaining modern knowledge and having access to the knowledge in the world (Alkan, 2005)

Development is a process which begins with birth and continues throughout the entire life. Education begins in family and continues in pre-school education centres which are the first institutions. These institutions which support all development areas of children lay the first and most important foundations of life. Completing all development elements or failure thereof at required ages is critical. Education studies have to be organised taking into consideration the individual differences of children in terms of cognitive development, emotional and behavioural development and all other developmental issues (Gurkan, 2009).

In recent years, plans for equipping pre-school education centres are being made so as to improve the education performance of children and organize physical conditions according to the spirit of time. An examination of pre-school education programs show that using audio and colourful materials in the education of especially young children made learning more permanent. Knowledge can be presented in different forms with the help of technology. As can be seen in several studies, technology usage begins at very small ages and it is known that more than 50% of children under 8 years of age can use technological devices effectively (Levin, 2013).

Technology is used as a supporting element in education curriculum studies conducted at pre-school period (MEB, 2013). Examining the contents and learning outcomes of pre-school education program, it can be seen that especially most education activities are consolidated based on learning by living, experiencing with different viewpoints, accepting individual differences regardless of the normality of development of children, and especially participation of parents. The process which tends to strengthen the learning centre has to be diverse in tools, instruments and materials which are to be used in learning by living or learning by experiencing. Relatedly, using technological materials becomes a requirement (Onal & Keles, 2012).

In particular, Fatih project which was put into effect in Turkey in 2012 ensured effective usage of technology at pre-school education and other schools (MEB; 2012); the fact that tablets are movable made them more easily transportable than other electronic education tools as a result of which their usage increased (Aronin & Floyd, 2013). Ozdamli and Tavukcu (2016) point out that when studying Tablet-supported education in different countries is examined, it is a wide field of study.

The latest declarations of American Paediatric Academy (2001) indicate that children under two years of age are negatively affected by intense exposure to technological devices and visual media. Especially using visual media leads retardation in language-cognitive skills of children. What is important is not usage technology but how it is used. A closer look at research findings show that, parallel to the expressions above, usage of technology in education or regular life has both positive and negative aspects (Yesilyurt, 2007).

Pre-school institutions pay special attention to preparing construction and materials for technological tools and instruments when they are preparing their physical conditions. It is known that delivering education with correct materials and technological tools and instruments plays an essential role in developing the skills of children (Arı & Bayhan 2000). Education is very valuable for the development and life of the child in early childhood. Education begins in the family and continues at school. Considering development periods and tasks, both the family and teachers must undertake serious responsibilities (Akman, 2014).

Method

The study used interview technique which is a qualitative research method aiming at acquiring detailed and in-depth information (Yıldırım and Şimşek, 2005). According to this method, face-to-face interviews were held with the semi-structured interview form which was prepared (Karasar, 2006) by the researcher. "Interview form prepared for tablet usage" was prepared by the researcher after literature search was made and a question pool was prepared which was compatible with the study.

The research was launched with 20 questions and 3 field experts were consulted. The experts examined the study in terms of its purpose, scope and clarity and based on their opinions the number of questions were reduced to eight. The following questions were included in the interview form:

- 1-How many hours a day is your child using tablet?
- 2-At which hours of the day is your child using tablet most?
- 3-Are electronic devices being used at the school for education?
- 4-In your opinion, is tablet usage an instrument of education?
- 5-Who is usually accompanying your child when he/she is using tablet?
- 6-What is your evaluation on the impact of tablet usage on the development of your child?
- 7-In which development field you see a positive change with tablet usage?
- 8- In which development field you see a negative change with tablet usage?

In order to check the comprehensibility and wording of questions 2 test interviews were conducted upon which the questions were given their final form. Then, appointments were made with the mothers who participated in the study and suitable hours were planned. Before each interview information was given to mothers on the study and then the research was launched. During the interview, attention was paid to see whether the participants understood the questions and the questions were repeated when they were not understood well.

For the reliability and validity of the research questions, opinions of experts were sought on the data of the study and comments. In order to ensure internal validity, interviews were repeated with three mothers and the results of the study were presented for their interpretation. The sentences which included direct opinions of participants were cited and shown in quotation marks. For internal reliability, opinions of experts were sought on consistency. External reliability was obtained through interpretation of experts on obtained results.

Findings

Theme 1: Tablet usage

- 1-How many hours a day is your child using tablet?
- 2-At which hours of the day is your child using tablet most?
- 5-Who is usually accompanying your child when he/she is using tablet?

Theme 2: Tablet and education

- 3-Are electronic devices being used at the school for education?
- 4-In your opinion, is tablet usage an instrument of education?

Theme 3: Tablet and development

- 6-What is your evaluation on the impact of tablet usage on the development of your child?
- 7-In which development field you see a positive change with tablet usage?
- 8- In which development field you see a negative change with tablet usage?

In accordance with the themes listed above, the answers given by mothers are summarised below. The mothers are coded as A1-A2-A3-A4-A5-A6-A7-A8-A9-A10 as their names were kept confidential.

Theme 1: Tablet usage

Question 1-How many hours a day is your child using tablet?

A1,A3,A8 answered as 3 hours a day, A2,A4,A7 answered as 2 hours a day, A6,A9 answered 1 hour a day, A10 answered 5 hours a day.

Question 2-At which hours of the day is your child using tablet most?

When we asked mothers when their children most tended to use tablets, the answers obtained from mothers was as follows: A10 said "usually when he displays very intense problematic behaviours and when I am not in a position to attend to him, he plays with tablet and I can control my own works". A6 and A9 said that they allowed for using tablet only 1 hour a day and it was definitely not possible to use tablet for longer hours. A1 said "my child takes his tablet as soon as he comes home and plays with it until dinner time while A8 said "at night, especially when I and my husband are watching TV or chatting with guests, he plays with tablet in his room and then he goes to sleep". A3 said "he plays for 1 hour on average in the morning until we have breakfast and I get ready, he also plays in the evening when he comes home, so, he plays for 3 hours or so in total". A2 and A4 stated that their children used tablet after school for some resting and fun for 2 hours while A7 told that her child spent time with tablet before going to sleep regardless of the time.

Question 5- Who is usually accompanying your child when he/she is using tablet?

A9-A6 said mother and father, A10-A5-A8 answered no one, A2-A4 said that the child was controlled occasionally, A7 said that it was father, and A3-A1 said that it was the sibling.

Theme 2: Tablet and education

Question 3-Are electronic devices being used at the school for education?

All mothers who participated in the study answered "yes" to this question.

Question 4- In your opinion, is tablet usage an instrument of education?

When we asked the mothers whether they saw tablet as an education instrument, A6 answered "I am definitely against using it for a long time, it must be used at required teaching and education hours so as to be an educational tool, and everyone must be careful to prevent their children from developing addiction", whereas A10-A5 said that their children learned many things when they tackled tablet. A2 stated "it can be harmful if it is not sue carefully, if the family has no rules, the child will be harmed". A1-A8 said that it was a good educational tool for their children whereas A4-A7 claimed that so as to be educative the uploaded programs should be suitable; otherwise it would be a purposeless and addictive material. A9 said "I allow for using it in a limited way as I think that it is for education, when m child is using tablet he must always be accompanied by either me or by his father, otherwise if we leave him alone he can play with it for hours, which I think is not right"

Theme 3: Tablet and development

Question 6-What is your evaluation on the impact of tablet usage on the development of your child?

Mothers stated that although electronic devices usually make contribution to development when they are used in normal life and education in today's conditions, they also confessed that they found it handy in times when they could not cope with the children.

Question 7- In which development field you see a positive change with tablet usage?

As regards the positive changes induced by tablet usage in children, A10 commented "I think that it increased the question-asking abilities of my child, he started to listen, watch and sit in one place for longer times". A9-A6 said that as they limited tablet usage of their children, they could use it as a reward and they could get things done more easily. A5 said "the child could not be contained but when he is on tablet he can sit for hours which is very important for me because we could not keep him in one place for more than 15 minutes but now he sits for long hours" while A8 reports "I see positive changes in my child as regards speaking, as the conversations on tablet are decent I think that my child has learned many things like making regular sentences, asking permission, asking questions and apologizing; in addition, I think that he knows more than his peers such as colours and numbers due to educative programs". A1 stated that her child was calm when he used tablet and more answering to the requests of his mother, and that he learned lots of things from the programs and cartoons that he watched. A4-A2 stated that understanding seasonal changes and more abstract things was easier and visual materials made many topics more understandable and easier to learn. A3 argued that the child learned lots of things from nice educative programs and A7 claimed that it was influential on his speaking development.

Question 8- In which development field you see a negative change with tablet usage?

The feedbacks provided by mothers on negative changes are as follows: A10 said "in addition to positive changes, if I leave him alone he will play games and never want to do anything else, as soon as he comes home he will take his tablet and it will be difficult to take it back". A5 told that the child was detached from games other than those on tablet and did not want to communicate with other children as he saw it unnecessary now that he had his tablet. A8 said "I think that my child spends less time playing with his toys, because he finds virtual games more enjoyable which is a problem in some other aspects such as he does not need to meet a new kid and play games, he wants to have his tablet with him not only at home but at other places as well; if we do not have it with us he makes a fuss of it and wants us to go back home early, I think he does not enjoy his toys as before". A1 said "it appears that if there is no tablet, he will not abide by the rules in our life, which makes me anxious as I do not want him to live with tablet in every stage of his life but now it is the most important reward that I can use to get things done. I tried other rewards but I did not receive any answer like tablet". A4 stated "before going to sleep, he always wants to tackle his tablet and when he turns it off he wants it under his bed. This addiction makes me nervous, every time he gets bored at home he wants to play with it and he completely prefers tablet instead of playing for a long time". A2 said "he always used to tackle with crayons and papers but now he is painting on tablet, as if electronic things are more enjoyable; I mostly try to confine it with 2 hours but I usually can get tablet back with difficulty, sometimes he is crying for hours". A3 said "when he is without his tablet he is always whining, purposeless games, sometimes he damages toys to, but with tablet the child is unbelievably happy and it is precious just like eating, which makes me anxious. He is too young yet." A7 said "last day offered drawing together and he gave an unbelievable reaction, he said that he did not want; but it was his favourite thing; I was shocked and asked why, and he offered to play with tablet. Honestly I was upset and suspected if it removes my child from education, and sometimes I think if 2 hours is too much. No matter how many times you call his name or say a thing like "let's go to park" or "let's do drawing" there is no reaction, or when there is it is rejection, which makes me nervous".

Conclusion and Discussion

In several parts of the world, studies are conducted with the parents of pre-school children. It is clear that to obtain results time has to be needed and experimental studies and results have to be evaluated. The fact that children at very small ages can rapidly adapt themselves to digital skills even before they can read and write and that they can canalize their attention so seriously is an issue of great curiosity. Acquisition of digital skills by children so fast makes their parents happy as much as it

causes considerable anxiety. Parents cannot decide whether so fast learning will have a positive impact on reading, writing and academic achievement or lead to addiction due to being a digital skill. Depending on this entire process, similar conclusions are reached in our country and in the world, which reinforces the paradoxes mentioned above.

Several studies produced results similar to this research. The study conducted by Epstein (2015) claimed that when children use tablet etc. tools, both positive and negative development processes are witnessed and that the critical point is balanced and rule-based usage. In this paper, some mothers stated that they thought that this process had both positive and negative aspects.

Most studies emphasised the questions on the accurate usage of technological devices instead of whether technological devices should be used.

The findings of the study conducted by Sayan (2016) which examines the benefits of using technological devices in education reveal that sense of language and mathematics is developed. Similar to the statements of A8 and A7, it is claimed that it makes positive contribution to speaking skills. In addition, similar to the claims of A5, the study found out that concentration and maintenance of attention improved. A5 had stated that the child who had difficulty in sitting in one place could sit for longer times with tablet. Negative findings of the same research indicate that children suffer from loneliness, introversion and distancing from friends, as well as being addicted, devoting too much time and experiencing captivity. Sayan's study also agreed with A5's discourse which complained about distancing from friends and lack of communication. In addition, A4's statement that the child even wanted the tablet in his room while he was sleeping indicates object addiction.

Guernsey (2012) stated that the educative videos prepared for small children and babies were actually educative tools and instruments which made learning easier. In our research, when the explanations on positive development under theme 3 – question 7 are examined, it can be seen that mothers emphasised the positive developmental issues obtained through proper usage.

In this study, interviewed mothers were asked about the negative developmental risks and the mothers mentioned addiction or other problems related to addiction with objects and interpersonal relations. Celen et al. (2011) reached similar conclusions and mentioned abusive and risky aspects.

There are studies which show that students of all age groups learn better and perceive more easily when studying with computers and technological tools and equipment. Uşun (2004) found out that computer-assisted education can result in more permanence than storing the information they obtained while receiving general education services. He also concluded that, similar to the attitude of mothers in our study, using visual and audio materials is important.

The findings of the study conducted by Sahin et al. (2015) indicate that using tablets in education affected development of children positively, which supports the findings of the questions asked to the mothers in our study. Parents of the children at pre-school education mostly wonder if using tablets will affect their reading and writing skills in the next stage of education, which was emphasised by the mothers in our study. However, the research conducted by Beschorner and Hutchison (2013) claimed that using tablet would affect academic performance especially in reading and writing period.

The expression of the mothers who participated in the study showed that the playing skills of children showed difference due to their tablet usage. Palaiologou (2014) found that 65% of parents who participated in the study reported that their selection of friends changed as well as their game preferences.

As for recommendations, one of the most important aspects encountered in this study as well as in other studies is that parents are anxious about the right attitude and they wonder if their children are harmed by tablet usage. In this context, it is believed that considering the personal characteristics of children controlled and accurate guidance can be provided and it can be ensured that they use programs which are suitable for their development.

In this research as well as in other studies, mothers stated that children sitting in the same place for a long time can suffer in terms of physical health; they also claimed that if they look at the tablet for long hours their eyes would be harmed. Therefore it can be recommended that tablet usage of children should be taken under control and thus their health can be protected.

Several studies show that children are sitting for 45 minutes on average even during regular education, which is the normal standard for paying attention. Some mothers said that their children played with tablet for 3 to 5 hours, which is one reason why these mothers are worrying for development of addiction in their children. The relation and communication of mothers with their children is directly related to the attitudes of parents.

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