

ANALYSIS OF REFLECTION AND EFFECT OF ACCESS TO TECHNOLOGIES AND THE ACQUIRED DIGITAL SKILLS ON EVERYDAY LIVES OF KINDERGARTEN AGE

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Abstract

Present-day children live in a highly technological environment and the constantly developing digital technologies call for a responsible attitude and behaviour of the adults regarding their upbringing and education. Parents, teachers and researchers must combine their efforts in view of revealing the potential of digital technologies for child education.

The family is apparently undergoing a crisis. Family life is becoming more mediated, contacts are increasingly dependent on the Internet (via Skype, Facebook, etc.), with conflicts being more and more symbolical and virtually mediated, rather than physical. The family seems to be losing control over its children as well as in the battle with digital technologies. A range of questions that what happens in the so-called media space every day poses need professional answers and comments with regard to education and social prevention.

All this provoked a research which main goal is to analyse the reflection and effect of access to digital tools and the acquired digital skills on everyday lives of 3-6 years kids. 300 mothers and fathers of children in kindergarten age are examined through a questionnaire that includes: some personal data; parents' attitudes to digital devices in everyday lives of the kids; level of acquired digital skills of their children; their opinion about kid's preferences about games, apps, websites, i.e.; the access to digital devices at home; when and how young kids use technologies and so on. 400 kids from kindergarten age are examined through personal interview that includes: some personal data; information for possession of digital devices at home; some examples from kid's lives, concerning the time and the way of the use of devices (during plays, while eating, during park walks, at restaurants with parents and so on). The results presented here are from town of Burgas, Bulgaria. The results are summarized and presented, and some conclusions are formulated.

Keywords: Digital skills at early age, Kindergarten and technologies skills, Parents' attitude to digital technologies.

1 INTRODUCTION

Nowadays, the access to technology for young children raises many questions in front of parents and the education system in general. Many research studies in recent years have looked at the dangers and positive effects of children's access to and activity in a technology-rich environment – how daily lives of children are influenced by technologies, what digital literacy is developed by using technologies, and so on [1], [2]. Previous researches of the author show that students from primary school age face real danger of cyber addiction. Every second child says that she/he uses devices and Internet every day. Tablets and mobile phones are used mostly for fun and games. Anytime that the child is not involved in the learning process, it reaches its phone. Clearly, most of the respondents react negatively when their parents restrict access to their digital devices. Unfortunately, not all students forget about phone games when they are playing outside. Some of them believe that it is impossible for something else to attract their attention, which is a disturbing result [3].

Probably one solution of the problem is developing higher digital skills at school age. Study shows that children who use information technologies to get information or prepare for school projects spend their time online quite purposefully. They say that this time is not at the expense of their other activities. In fact, they use digital devices for self-improvement rather than other needs as improving mood for example [3].

All this has provoked a research concerning technologies usage at preschool age. The research has two modules – to investigate parents' and to investigate pupils' point of view, concerning access to digital devices in everyday life of kindergarten children.

2 METHODOLOGY

To investigate the parents' opinion about the access of young children to technologies, a survey with 300 parents of children from kindergarten age (4 to 7 years old) was conducted. Bulgarian kindergarten is organized in four groups. The first group include 3-4 years old children, and the fourth group include 6-7 years old children. Parents from the research are equally distributed between kids' groups.

The paper presents the results from the survey of parents of fourth grade children. According pupils' point of view, 4 selected interviews of 2 boys and 2 girls are presented and analysed.

78 % of the respondents are women and 22% are men. All participants are from Burgas – a big Bulgarian town, situated on Black sea coast.

- 51% of the parents are between 28 and 35 years old;
- 42% are between 36 and 45 years old
- 3% are above 46 years and
- 4% have no answer to this question.

It is interesting that 72% of the parents are graduated high education, while 18% have secondary education level. Analysing the family status of the participants about 50% of parents are married, while 22% live as a free union family.

For the research, concerning parents, a questionnaire was used, including three sections: A – demographic module (question concerning gender, age, family status); B – technologies access module (number and kind of personal devices possessed, frequency of use of devices); C – attitude module (questions that provoke parents to give their attitude to technologies – if they are useful or in opposite, how children feel when start playing, and so on.);

The survey is conducted in parallel with research about children's opinion regarding similar questions. As children from kindergarten age are too small for filling questionnaire, the interview method was implemented. Kids were asked questions about their regular everyday routines to clear what kind, how often and when technologies are used actively.

3 RESULTS

Numerical result confirms the expectation that kids live in rich of technologies environment. There is no one family without some kind of digital devices, even more – 98% of parents state that they have smartphones (Figure 1) and almost every family have stationary computer or laptop at home. People prefer mobile devises as tablets and smart phones. 100% of surveyed parents say that they have internet access at home and internet on their mobile phones.

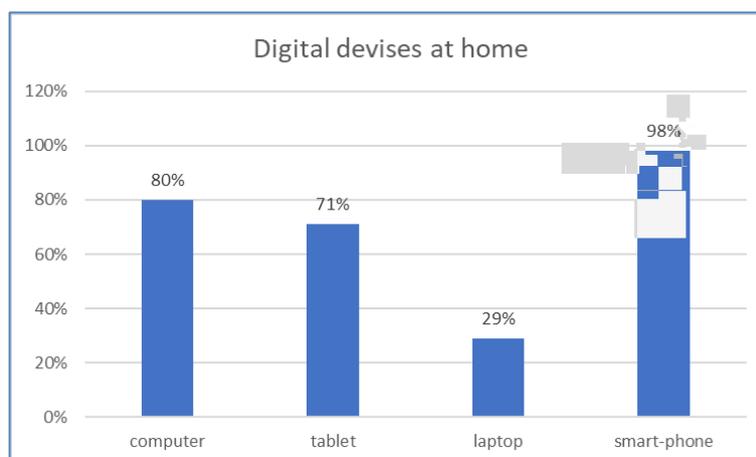


Figure 1. Access to digital devises at home

80% of parents surveyed use a computer and about 97% – Internet every day (Figure 2). But if we take in account that all have smartphones we could conclude that parents use digital device and Internet every day.

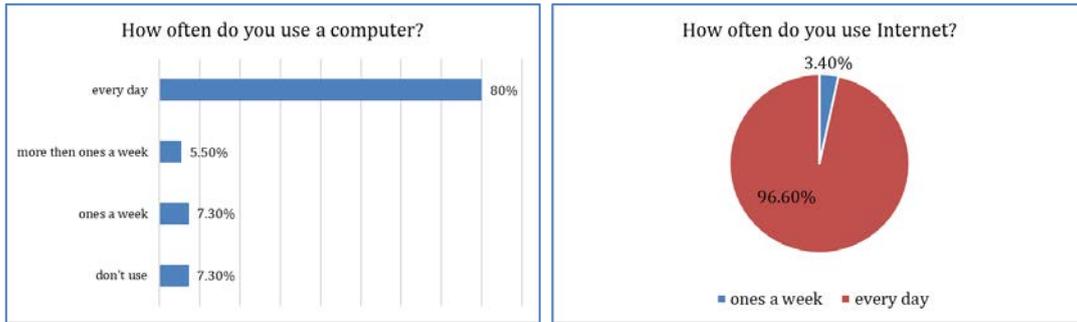


Figure 2. Frequency of computer and Internet usage

Most of the parents have positive attitude in general to the technologies in our everyday life (Figure 3). More than 60% think that the technologies are useful. At the same time, again about 60% of them think that we become dependent on technologies. Still we have about 20% thinking that digital technologies are harmful. One third of the parents state that we became isolated and 14% – more lonely. For 14% technologies are dangerous and for 25% – they are harmful to our health. Some of surveyed parents with negative attitude to technologies state that the technologies block children in important aspects such as fantasy development. Make them passive. Make them consumers looking for illusory pleasures.

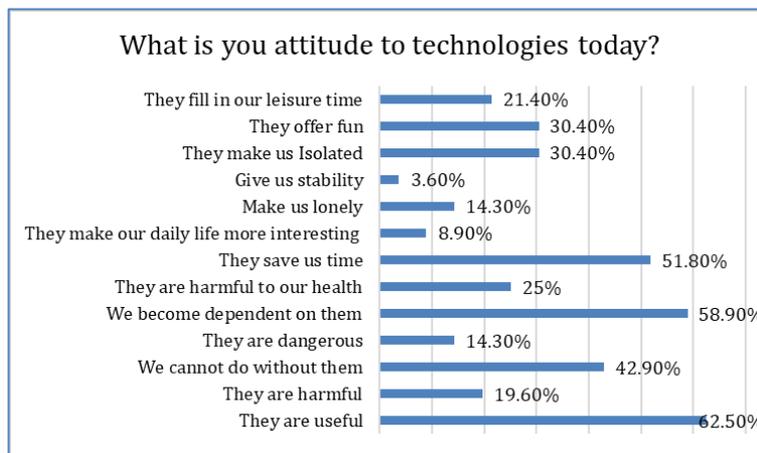


Figure 3. Parents' attitude to technologies

On the question when children usually use tablets at home, more than halve of parents answer that this happens in weekends – afternoons (56%), mornings (17%) and evenings (40%) (Figure 4). Relatively small percentage of the parents say that their children play while eating. This practice is quite negative and could have destructive effect on developing personal social skills to kids in future.

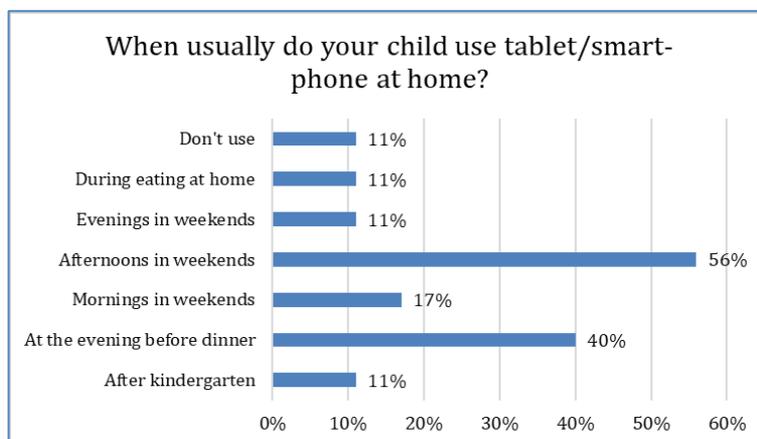


Figure 4. When do children use tablets/smart phones at home?

To outline the kids' point of view let's consider four children's interviews. Pupils M.B, S.G, D.G. and D.Z. were asked questions and their answers were recorded digitally.

M.B. is a 6 years old girl. Her family consists of 4 members – mother, father, older brother, and M.B. She plays on the tablet at home every day. The tablet belongs to the whole family. M.B. has her personal smartphone as well. At the evening no one reads books to M.B. She usually uses the tablet to watch video clips from Internet. She starts and stops the video alone. During eating M.B. does not play on the tablet or phone, but usually watching TV. No one helps her when using the tablet. She seeks someone only to write a word when is searching for a video clip. On question when yesterday you played with the tablet, M.B. says: "When arrived at home after the kindergarten, and later again, and then again". She stops only when parents say her to stop. At home M.B. plays usually alone as her parents are always busy. She does not ask for permission to take the tablet to play.

S.G. is a 6 years old girl. Her family consists of 4 members – mother, father, older brother, and S.G. She has personal tablet. At family they have computer as well. She has not personal smartphone. At the evening S.G. reads books alone - she can read. She plays with the tablet at home any time she wants. No one stops her to do this. She prefers watching video clips. Starts the clips alone from YouTube. She writes alone a keyword – name of some favorite films as "Franklin". During eating she does not play on the tablet, but all family usually watches TV. She likes different games. She likes shooting games. On question when yesterday you played with the tablet, S.G. says: "I played after dinner". She does not ask for permission and no one say her to stop playing – she decides alone when to play and how long to play. She plays alone at home.

D.G. Is a 6 years old girl. Her family consists of 4 members – mother, father, older brother, and D.G. She has personal smartphone with Internet access and apps with games. At the evening no one reads books to D.G. She plays with the phone at home after kindergarten. She does not ask for permission to use her phone. She asks for permission to use her father's phone. She wants his phone because on his phone there is a game she has not. And cannot be installed because there is no enough memory on her phone. She prefers to play games. She likes games like following someone to earn points. She controls the hero using touch screen commands. During eating she usually watch some video on the phone. She asks other for help only when have to write a word for searching video clips. After kindergarten with mother or father she goes somewhere for a walk. Later they go home, and she starts playing on the phone how long she wants. No one says her to stop with the phone.

D.Z. is a 5 years old boy. His family consists of 4 members – mother, father, older sister, and D.Z. At home they have computer and laptop. D.Z. has no personal device. He usually plays on the phone of his father. At the evening D.Z. reads sometime alone – he can read. He prefers playing one particular game. Cannot use the phone when he wants. Sometimes he does not play 2 or 3 days. The father usually says, "Only 5 minutes for playing". But D.Z. says "I go to my room and my father does not remember. So, I play much more". He stops playing when the father says him to stop.

Kids have knowledge or some understanding for many terms concerning technologies. They know the names of different devices, knows terms like screen, keyboard, apps, Internet. According to parents, the children cannot work with mouse and even don't know what the computer mouse is. Usually kids use only touch screen devices like tablets and smartphones and don't need to use a mouse and cannot work with it.

4 CONCLUSIONS

If we compare parents' and children's points of view, we could find quite big differences. Parents state that they control children's plays, but most of the children state that they don't ask for permission and play when and how long they want.

In most of the cases, parents don't read books at the evening to their children. At home the kids play alone, usually on their smartphones and tablets. They don't play with their parents. Most of the children don't go out to play with friends, without their parents.

We could divide the kids generally in two groups – with and without parents' control on their access to devices and on time regulation, for playing games or watching video clips on the tablet/smartphone.

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