

BULGARIAN PARENTS' VIEWPOINTS ON DIGITAL DEVICES IN CHILD OF TODAY LIFE. RESEARCH OF CHILDREN'S HABITS OF DIGITAL TECHNOLOGY USAGE

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Abstract

The theme of digital literacy of today's children is not only actual and important but its conceptualization and reconceptualization is necessary to happen suddenly. If the researchers and pedagogues (and parents, of course) want to understand the child of today they should investigate his/her common 'digital' life.

This article presents the results of a survey among parents of primary school age children. The survey is a part of fundamental research, funded by the Bulgarian Science Fund – Digital Competencies and Media Education at Pre-school and Primary School Age (DN 05/8 14.12.2016) with coordinator Prof. Dr Romyana Papancheva from the University „Prof. Dr Asen Zlatarov”, Bourgas. The author is the leader of the Working Group „Research of the connection between Reading and Digital literacy” as part of the project. Based on preliminary done investigations and on an acquainting with literature about this problem in Bulgarian and English languages it has been developed a toolkit that is integrated in the questionnaires. In the first stage of the project there are made three types of surveys – for students (priority from fourth grade), for parents and for teachers.

The survey of parents' toolbox contains a questionnaire with 41 questions. The design of the study was divided in three parts – section „Reading” (18 questions), section „Digital literacy” (13 questions – 5 of them open questions) and section that tried to analyze the parents' opinion about a connection between reading literacy and reading habits and the formation of digital literacies of children up to 11 years old. There was also a demographic part.

The accent in this article is on the results of parents' survey – there are analyzed parents' attitudes towards a formation of digital literacy of their children.

In 2018 there were interviewed 144 parents from different Bulgarian towns – capital, a very big city /over 200 000 population/, a big city / up to 200 000 population /, middle towns – up to 100 000 population, small towns up to 30 000 population and very small towns – under 10 000 and villages.

In the research it was used Europass' Self-Assessment Grid for Digital competence and parents should do self-assessment of their abilities for Information processing; Content creation; Communication; Problem solving and Safety.

It is also shown at what ages children start using digital technologies. It is interesting to understand that some kids (9%) had started using devices before they have turned one year. Relatively equal is the distribution in other aged groups. Only one parent said that their child doesn't use digital technology.

The survey describes children's habits of digital technology usage – how many hours per day they use smartphones or other devices; what kinds of activities (playing games, reading e-books, watching YouTube, studying) children carry out with digital technologies, etc.

The article also presents the demographic profile of respondents and some interconnections found between the parents' profiles and the children's attitudes towards the usage of digital technologies.

Keywords: survey, parents' viewpoints, children, digital technology, usage, digital literacy.

1 INTRODUCTION

The theme of digital literacy of today's children is not only actual and important but its conceptualization and reconceptualization are necessary to happen suddenly. If the researchers and pedagogues (and parents, of course) want to understand the child of today they should investigate his/her common 'digital' life. Today more than ever, the school should have a mission not only to be an educating organization but also to create environment for acquiring social skills and experience, to

prepare children for new challenges of our technologized and multicultural world. That's why there is necessity to change the pedagogic model. In Bulgaria still dominates learning theory model. Children haven't got a connection with practice. They study principally theory.

New educational paradigm requires new approach and training should be based on active learning. We can effectively apply Information and communication technology (ICT) in early education by using its interactivity, constructivism that gives priority to the cultivation, according to children's own needs, ability to deliver pleasure to children, etc. „The introduction of mobile information technologies in the modern educational system, both in formal and informal forms of learning, is the logical response to the global educational and information space and the needs of learners in it” [1].

The modern technologies must be used for the benefit of the learning process and not only as an expensive toy and tool for fun and relaxation in the free time. Emphasis should be placed on the opportunities offered by the usage of digital technologies for educating children and for their complete development. IT creates excellent conditions for illustration and demonstration of the material - critical thinking, develops the acquired knowledge, improves skills, develops teamwork, engages the attention.

This article presents the results of a survey among Bulgarian parents of primary school age children. The survey is a part of fundamental research, funded by the Bulgarian Science Fund – Digital Competencies and Media Education at Pre-school and Primary School Age (DN 05/8 14.12.2016) with coordinator Prof. Dr Romyana Papancheva from the University „Prof. Dr Asen Zlatarov”, Bourgas. The author is a leader of the project's Working Group „Research of the connection between Reading and Digital literacy”. The main purpose of the study in this Working Group is to seek the correlation between the formation of digital literacy in children up to 11 years and the development of their reading skills. This goal would be accomplished by solving the following tasks: to study parents' attitudes to digital technologies and their use by their children; to provoke the activity of parents to use digital technologies for the formation of reading and digital literacy of their children.

2 METHODOLOGY

In the first stage of the project /2017-2018/ there are made three types of surveys – for students (priority from fourth grade), for parents and for teachers. The foci in this article are parents' viewpoints on digital devices as part of their children's lives. The greatest responsibility for the formation of a relationship to digital technologies in early childhood has parents. Children copy the behaviour of their parents. This also applies to their use of technology. Based on preliminary done investigations and on an acquainting with literature about this problem in Bulgarian and English languages it has been developed a toolkit that is integrated in the questionnaires.

The methods for collecting and registering sociological information are direct individual anonymous parents' poll, as well as a semi-standardized interview with parents of selected pupils in the next stage of the project. The stages of the survey include an organizational stage; recruitment and registration of sociological information; processing of the collected sociological information; and analysis of the results of the sociological surveys.

The data was collected using a survey tool developed specifically for the purpose of the research. The toolkit contains a questionnaire with three parts – a section „Reading” /with 17 closed-ended questions and one open-ended that measured parents' perceptions and practices of reading at home/, a section „Digital literacy” /with 8 closed-ended questions, 3 open-ended questions, and mixed – 2/ and a section „Connection between them” /with 6 closed-ended questions, 2 open-ended questions, 2 mixed/. There is also a demographic part with 11 questions.

The Criterion „The role of digital technologies on child of today life” may measure with indicators as an access to technology at home; a Screen-time; an Attitude towards technology; a usage of different applications, etc. All questions from the Second section are connected with parents' attitudes towards digital technologies and the indicators that have been sought are the personal example of parents, the purchase of digital devices, ages when the children started using technologies. In searching the correlation between reading and digital literacy there are used indicators that have sought the impact of technology on the children's desire for reading and learning, for enrichment of knowledge, and for possibilities for skilful handling of information, etc.).

3 RESULTS

The survey was carried out in 2018 among 144 parents from different Bulgarian cities and towns.

3.1 Bulgarian parents' viewpoints on digital devices in child of today life – an analysis of the survey

3.1.1 Participants – demographic profiles of respondents

In period March-May 2018 144 parents were asked to fill questionnaire survey. The respondents are from the capital /Sofia/, very big cities /over 200 000 population/, big cities /up to 200 000 population/, middle towns – up to 100 000 population, small towns up to 30 000 population and very small towns – under 10 000 (according to National Statistical Institute of the Republic of Bulgaria (BNSI); 31 December 2017). 21% of interview parents are from the capital Sofia, 1% from very big Bulgarian cities, 48% live in big cities; 9% of respondents are from middle towns; 9% – small towns; 6% – very small towns; 6 – from villages; 5 people didn't answer.

The men who participated in the poll were 14 and women – 127. Three of respondents didn't answer about their gender. Parents aged between 30 and 49 years prevail – Fig. 1.

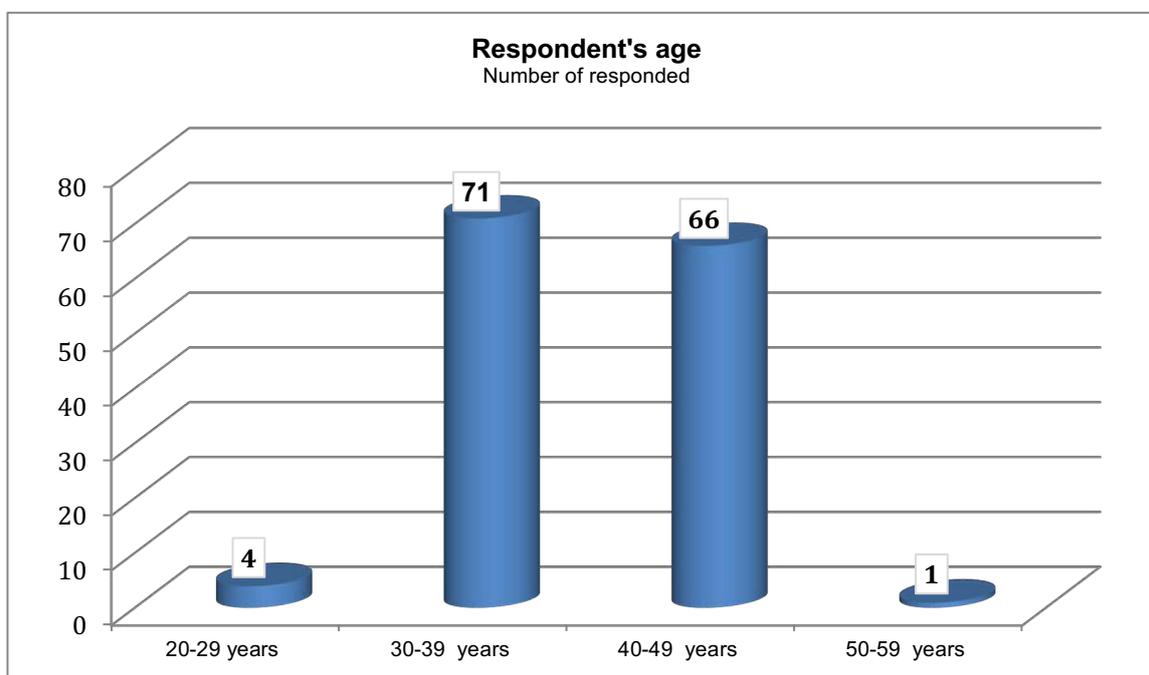


Figure 1. Respondent's age.

The employment status is as follows: jobless – 8 people; students – 2; freelancers – 6; half-day work – 3; full-day work – 117 respondents, no answers – 8. That means that the majority of parents are busy throughout the day and cannot have direct control to the activities of their children during the day. These active parents have got long work experience. 27 respondents have between 5 and 10 years work experience and 74 (61% from answered) – over 10 up to 20 years work experience; 11 – over 20 years, but 8% are less than 5 years on the job.

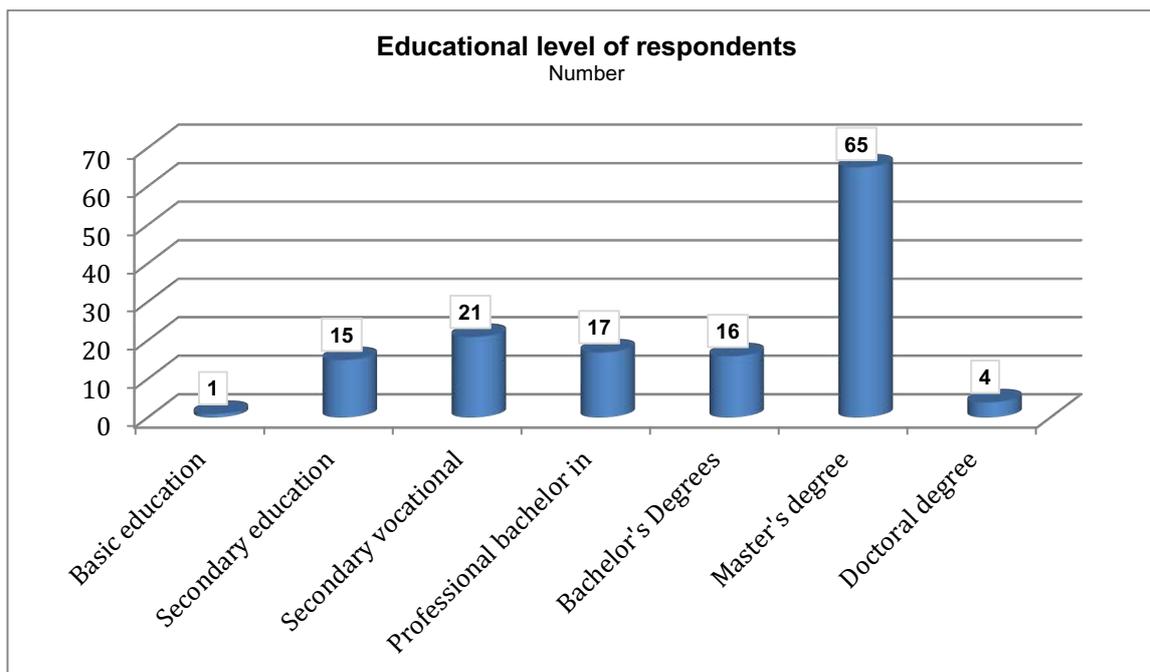


Figure 2. Respondent's educational level.

As can be seen from the graph, respondents have a high level of education. Many studies have demonstrated the link between parental education and the level of digital literacy of children, as well as attitudes towards reading is much better when parents have higher educational degree [2, 3, 4]. The largest number of respondents is of the economists – 10%. There are teachers, doctors, pharmacists, lawyers, financiers, brokers, architects, managers, policemen, accountants, traders, coaches, priests, university lecturers, hairdressers, tailors and other professions. 28% from the respondents have one child, 67% – two children, 5% – three kids, and only one parent has got 4 children. The observation and the preliminary studies show that children who have older siblings acquire easier and earlier skills to work with technology [2].

3.1.2 Data analysis

The first question is connected with parents' self-assessments of abilities for digital technologies usage. According to Europass' criteria: Information processing; Content creation; Communication; Problem solving; Safety of Self-Assessment Grid for Digital competence [5] 3 parents answered that they don't have any abilities for using technologies; 19 defined their skills as basic; 39 classified themselves as Independent users, and 79 as Proficient users. The last ones are "Digital Integrators" as marketing specialists call people who "live digital, innovate strategic, need to integrate in digital world". These parents' views about the digital lives of their children are interesting to analyze. The question 10 from the survey discusses parents' opinion about children's usage of touch-screen devices. 41 of these 79 respondents believe that the use of touchscreen devices develops the motor skills of children, that means that a half of Proficient users doesn't think so. But the multimedia interface of tablets attracts children by stimulating their tactile, visual, auditory, kinaesthetic feelings, providing them with immediate feedback [6]. Also an interesting result is that 32 of the Proficient users that co-use technologies with their children. 6 parents wrote that they don't want their little children use digital devices.

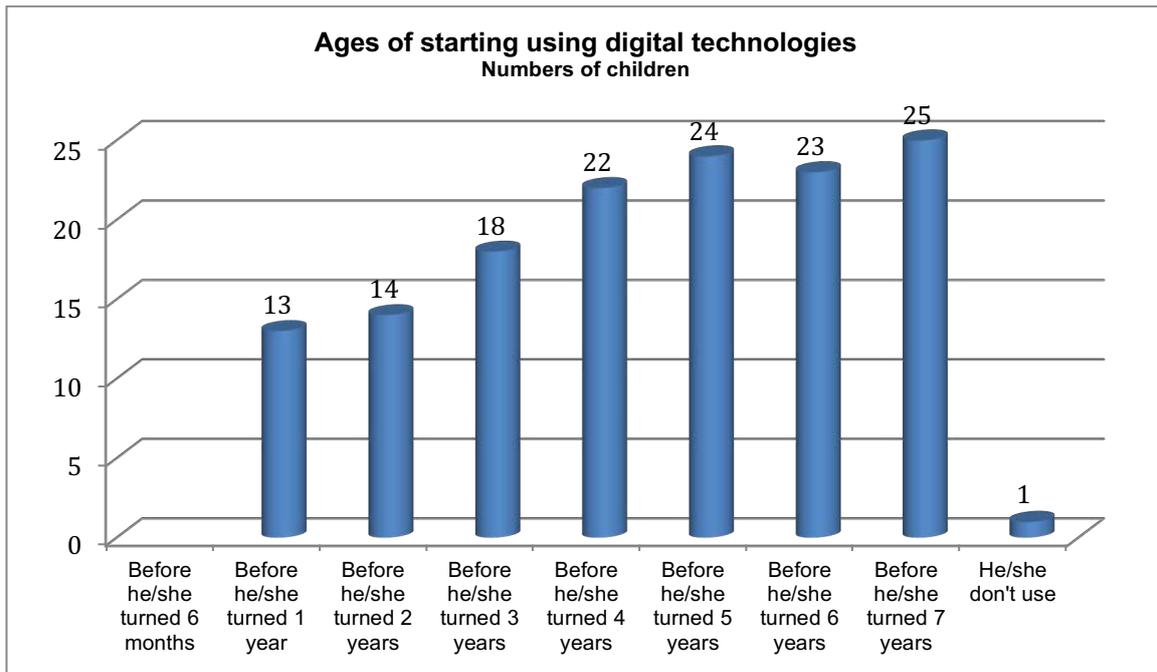


Figure 3. Children's ages of starting using digital technologies.

Internet and digital devices are part of children's daily lives, and the age at which the child first comes to the new technologies is declining. The answers to the question connected with the begging of usage digital technologies are not unexpected (Visualization in Fig. 3). There are parents who say that their children have become familiar with the use of divas before they reach 1 year (9%). Relatively more equal is the distribution in other age groups. Only one parent states that his/her child does not use digital technologies.

Parents play an important role in providing their children with opportunities to access and use digital devices at home that affect their learning.

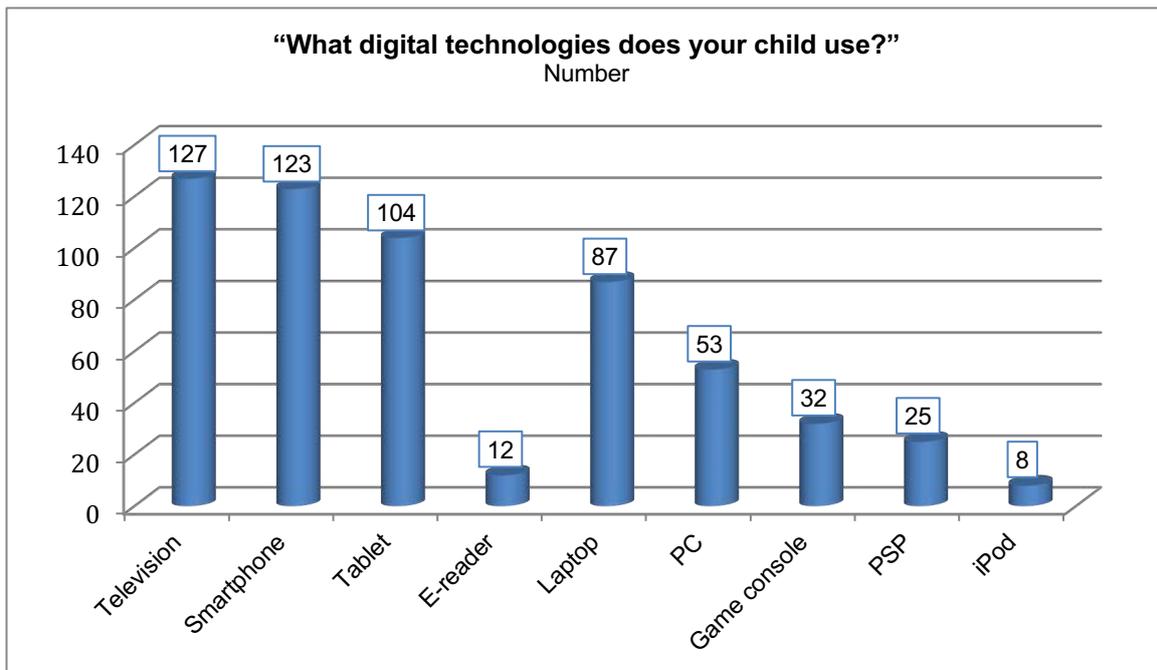


Figure 4. Digital devices in use.

Almost all children watch TV (90%), 87% use smartphones. 74% – tablets, 9% of respondents said their children read e-books. (Fig. 4)

The results show that 86% of Bulgarian children use digital devices for games. In the United States is the similar situation, parents use to give the child a digital device to provide themselves freely for another activity while in the United Kingdom, only 24% [7]. Bulgarian parents also try to delegate the responsibility for the fun of their children to digital devices [8]. Most of them use online technology as a babysitter [9]. 77% of children use Internet when using devices, 44% use digital technologies for video/audio chats; 63% for watching videos, 84% for YouTube. The results of other researches also confirm that „The fact that a person is born in the digital age does not automatically make them digitally literate” [10]. „The three activities that Bulgarian children most often engage in on the Internet are social networking, watching videos and listening to music” [10]. Modern children are constantly using technology, but it does not make them digitally competent. Efforts are required from both parents and teachers to form digital literacy in children.

Only 16% of the children read e-books; 30% use digital technologies for creating something – music, art, pictures and 37% of parents thought that their children use digital devices for studying lessons. These results should be analyzed by pedagogues and serve to develop pupils' training strategies so that they become adequate to the digital age they live in.

Important for the analysis are answers of the mixed questions, where besides the closed-ended answers is the question „Why?“. 56% of the parents said that they are worried about the use of digital devices by their children because not only does it impair their kids' vision but the child becomes obsessed with technology, lazy and does not want to read books because of immobilization. „Because the child becomes nervous, he does not pay attention to things around him when he/she plays with smartphone, for example”. „Internet hides many dangers”. The parents who responded that they did not worry that their children use technology explained why in the following way: „Because I think he uses them moderately”; „Because digital devices also have positive sides. There is a fair amount of information related to any field”, etc. But „Most parents do not make a difference between technical skills and positive use and devote little, if they do, to encouraging and building digital literacy and critical thinking in their children” [2].

The question „How many hours a week does your child use digital technology?“ 7 parents answered „permanently“, „non-stop“, „all day“. Some parents said „70 hours”, which means 10 hours per day children play on devices. Otherwise 78% of parents said “My child uses digital technology with my permission. I control the screen-time”. 22% of parents reported that their children are engaged weekly from 1 to 8 hours, which means these parents have extremely strict time control over screen-time.

To the question „Do you approve early digital literacy training in school? Why?“ 33% responded “No”. One parent explained: Because it is more important that children develop motor skills and skills to communicate verbally. Other said: “They have to play outside, not with digital devices”. The analysis of responses shows that some parents do not understand the importance of digital literacy. They think it's just an on-screen game. 67% of parents however support the idea that children should be trained in digital literacy since primary school. “Because we live in technological time” said a respondent and other answered „Reality requires us to be digitally literate!”

64% of respondents had been looking for relevant applications for training their children. But only 28 parents described what kind of applications they had chosen. The next question is about the most used applications [11] – Fig. 5.

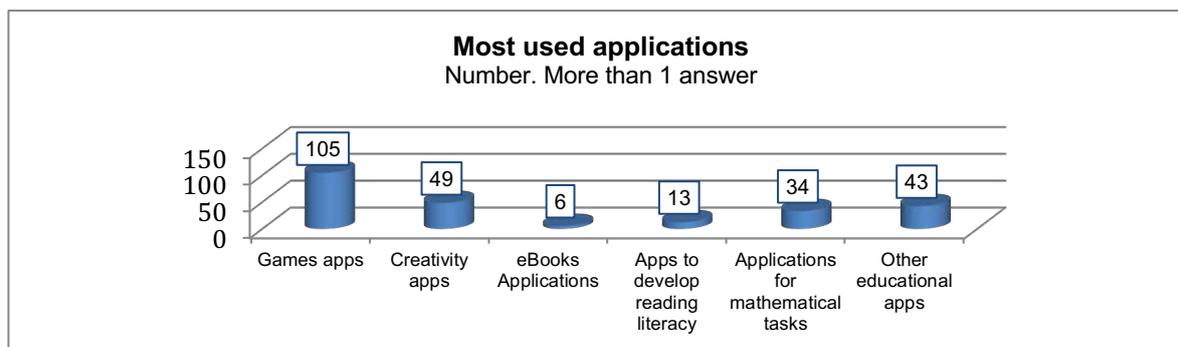


Figure 5. What apps does your child use most often?

80% of children prefer apps for games; 37% – for art creating (painting, music creation); 33% – for education; only 10% – reading.

The parents were asked why they spend time with their children on digital devices. 25% of respondents use digital technologies together with their children, because it's a good way to spend time together. 52% answered "to make sure that the child does not use inappropriate content for their age"; 39% – to clarify the concepts and to help their children. Co-using technology is fun for 30%. Some parents gave more than one answer. Almost 50% (69 people) didn't answer to the question "Why do not use digital technology with your kids?"

"Do you think you are achieving a balance between the use of digital technologies and other children's activities?" is the last question from section 3 "Relationship between reading and formation of digital literacy of students up to 11 years old". 82% believed that they achieve a balance in their children's life, a balance between using technologies and other activities.

3.1.3 Traditional literacy as the gateway to the world of new literacy

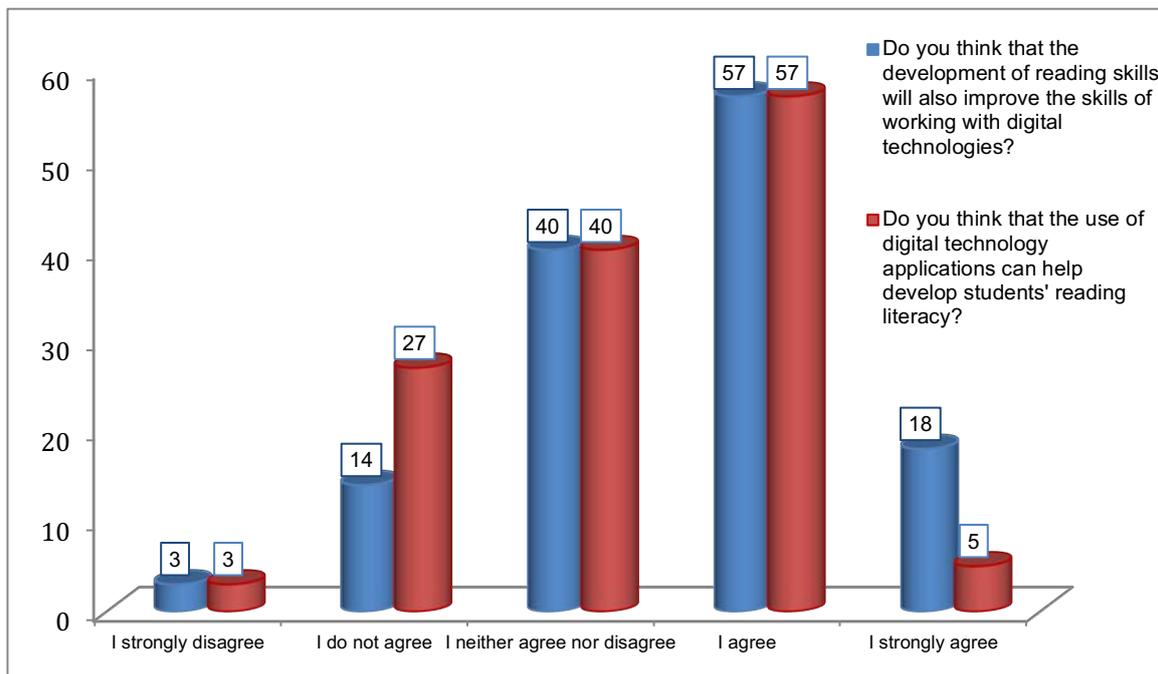


Figure 6. Comparison between 2 research questions.

"Competences in traditional literacy are the gateway to the world of new literacy" said researcher Mark Warschauer [12]. Digital competence includes not only digital skills but also social and emotional skills and attitudes in a specific context [13].

There is a connection between reading literacy (traditional) and forming of digital one. Over half of respondents agreed with this statement.

4 CONCLUSIONS

ICT can be used to enhance the activity of children. It helps them overcome barriers in communication, provoke thinking and social interaction. Interactivity gives children the opportunity to be active participants in events. Children's digital experiences at home shape the development of digital literacy. When using technology the emphasis is placed on lifelong learning and not on teaching, the training is connected with creative thinking. Parents, teachers and researchers have to combine their efforts in view of revealing the potential of digital technologies for child's education [14]. Parents should play their essential role in shaping the practice of their children with technology at home. The education system needs some serious changes. Programs for students need to be rethought in the spirit of the new paradigm - digital but also knowledge based [15]. Because knowledge changes child of today life.

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