



Eunika Baron-Polańczyk

Uniwersytet Zielonogórski

ORCID 0000-0002-8163-5491

Barbara Walas

Przedszkole Miejskie Nr 1 w Kozuchowie

ORCID 0000-0003-2140-9318

The media reality of preschool children in the opinion of children, teachers & parents

Rzeczywistość medialna dzieci w wieku przedszkolnym w opinii dzieci, nauczycieli i rodziców

Abstract: The article presents a fragment of diagnostic research of a mixed nature, establishing the media reality of preschool children. It seeks answer to the question defining the media reality of preschoolers in the opinions of children, teachers, and parents. The diagnostic survey method (survey, interview, document analysis) and statistical methods (chi-square independence test, ANOVA Phi coefficient, Cramer's V) were used. The study examined 100 6-year-old children, 100 parents and 16 pre-school teachers. It was established that: 1) pre-school children: have unlimited access to the mobile applications; use media tools at home in an uncontrolled manner; in kindergarten they learn the rational and correct use of new technologies while playing and learning; 2) parents and teachers assess children's media competences at an average level; parents see in the use of media by children both advantages and disadvantages; 3) children learn through play, experimenting with tools, they can independently install games on their tablets or smartphone, often their parents install them themselves (most often these are games inappropriate for children's age); 4) there are significant differences between children's opinions and parents' perception on the media tools usage; preschoolers claimed using tablets more often and parents most often indicated that children mainly watch TV; 5)

calculations of differentiating factors showed significant statistical differences in only one case – between teachers’ opinion on the children’s level of media competency and the teacher’s degree of professional advancement; the higher the degree of advancement, the lower the assessment of the level of competences represented by six-year-olds.

Keywords: media pedagogy, diagnostic and correlation research, pre-school children, media reality, media usage, media competences.

Introduction

Modern media and technologies are, next to the family, the most important educational environment. Younger and younger children use technology – fully existing in online cyberspace, in a world of “new new media” (Levinson, 2013). This makes the role of the media in a child’s life significant. The media reality in which children grow up not only affects the development of selected information competences but may also disturb their emotional and social development (Stachowska, 2014, pp. 328-333). The impact of technology on children’s development and media usage from an early age is the basis for dialogue among many scientific communities – the discourse focuses on the benefits and threats emerging from this process – which was clearly visible during the COVID-19 pandemic (Bigaj & Dębski, 2020, p. 77; Doucet et al., 2020; Bailenson, 2020; Murphy, 2020; D’Souza, 2020).

In the context of current access to new technologies, it was recognized that it would be cognitively valuable for pedagogical practice to carry out research aimed at shaping the media reality of pre-school children. This period of development is undeniably the most important for every human being (Kielar-Turska, 2014, pp. 83-129). Therefore, an interesting question is: What is the media reality of preschool children? An attempt was made to identify the elements of the young user’s media reality (media tools, competences, learning and entertainment) and to understand the mechanisms of actions taken by parents and teachers to prepare children for life in a networked world. In addition to the opinions of the preschoolers themselves, the opinions of teachers and parents turned out to be equally interesting.

Research Assumptions

In the endeavor to learn about the practice, attempts were made to show the media reality of 6-year-old children in the pre-school and family environment. The theoretical context of the considerations is determined by constructivist theory in socio-cultural perspective (Kron & Sofos, 2008, pp.

83-84; Henson, 2015). The adopted paradigm is based on mental processes running in our brain, which process information and result from the individual's actions in a social context. For this reason, learning is understood as the basic process of practically introducing culture into the learning community (Juszczak, 2007, pp. 28, 166). The use of media means that knowledge is built on cultural and social constructs using technological progress (Bruner, 2006, pp. 4-17).

The theoretical position is determined by the model of the child immersed in media reality, which includes considerations on: 1) media society and media, which constitute a new quality in the process of cognition and at the same time a new difficulty motivating for convergent education supported by interpersonal communication (McQuail, 2007, p. 57; Miąso, 2017, p. 216); 2) a play-based learning process that includes intensive accumulation of experience, learning about the environment and exercises that take different forms depending on the conditions (Ohler, 2010; Sikorska, 2017, pp. 191-205); 3) development, especially cognitive, of a preschool child, referring to the construction of knowledge – processes thanks to we can adapt to the world and understand it (Schaffer, 2008, pp. 97, 225; Karbowniczek et al., 2011, p. 148); 4) media competences, which are important when considering the phenomenon of human subjectivity and its adaptation in various periods of the life cycle, functioning in various areas of individual and collective life in the world of media – considered as a harmonious composition of knowledge, understanding, evaluation and efficient use of the media (Strykowski, 2004, pp. 33-37); 5) family, considered as a natural and irreplaceable element of the social structure, the first environment in which a child learns to speak, think, express emotions and social relationships, first with the loved ones and then with more distant people (Kwak, 2015, pp. 15-30; Izdebska, 2015).

At the conceptual stage of the project, it was assumed that the undertaken activity would take the form of diagnostic and correlational research (Ferguson & Takane, 2016, pp. 33, 142-143, 233-254) of a mixed (quantitative and qualitative) nature (Dróżka, 2010, p. 125; Urbaniak-Zajac, 2019, p. 122), embedded in media pedagogy and pre-school education. As part of the diagnostic survey method (Pilch, Bauman, 2010, p. 80), three research techniques were used: qualitative interview (in-depth, unstructured) (Kubinowski, 2010, p. 59); survey (Babbie, 2016, pp. 247, 255-264); analysis of documents (Gnitecki, 2004, p. 132). Statistical calculations were carried out using the chi-square independence test (Wieczorkowska-Nejtardt, 2003, pp. 270-284) and the Phi coefficient, Cramer's V. The ANOVA test was used for the calculations, which allowed simultaneous comparison of intra-group versus inter-group mean

differences at the level of significance generally accepted in scientific studies for individual groups (King, Minium, 2020, pp. 484-490; *IBM...*, 2023).

The main research (surveys, interviews) – involving children, parents, and teachers – was conducted in selected pre-school institutions of the Lubusz Voivodeship in 2020-2021. Due to the subject matter of the work, the selection of the group was non-random, intentional (Rubacha, 2008, p. 124). The conclusions from the study of the selected sample group were generalized to the indicated and described population. The research group consisted of 100 6-year-old children (55 girls and 45 boys), 100 parents (75 women and 25 men)¹ and 16 pre-school teachers². The analysis of the documents included: legal acts (acts and regulations regulating the work of pre-school institutions, core curriculum for preschool education for kindergartens, preschool classes in primary schools and other forms of preschool education), documentation of teachers' work (class register), documents planning educational and didactic work (monthly plans).

The main question was related to determining the media reality of preschool children – based on the opinions of children, teachers and parents. This made it possible to clarify the areas of research on the media reality of preschoolers concerning: the media tools usage (1); media competences (2); media-based learning (3). With regard to dependent problems, the following was established: the relationship between children's opinions and parents' perceptions on the media tools usage (4); factors (sociodemographic characteristics of children, parents, teachers) differentiating the studied class of phenomena (5).

Research Results – Interpretation & Discussion

Educational practice involving the process of shaping the media reality by preschool children, parents and teachers was recognized. The designed environmental research made it possible to diagnose the existing condition, collect empirical material and perform statistical calculations.

¹ Distribution of the number of parents by education: basic – 0; professional – 11; medium – 35; higher – 54. Distribution of parents by age [age range]: 21-25 – 5; 26-30 – 11; 31-35 – 41; 36-40 – 36; >40 – 7.

² Distribution of the number of teachers by professional promotion grade: trainee – 2; contract – 9; appointed – 3; Certified – 2. Distribution of teachers by age [age range]: 26-30 – 1; 31-35 – 4; 36-40 – 5; 41-45 – 1; 46-50 – 1; >50 – 4th place.

Media Tools Usage (1)

Preschool children declare that they have unlimited access to applications and programs. They watch not only various cartoons (39%), but also other programs. More than half of children (51%) watch programs intended for their parents. Thanks to the free use of media tools, children can freely choose media from the offer of television stations. Most often, these programs are not suitable for six-year-olds. Children have tablets or computers (39%), they can easily use the TV sets (34%), which are often in their rooms. Preschoolers also have the opportunity to use smartphones with an Internet connection at home (27%), therefore they have constant access to the global network. The drop in prices, easy and quick availability of electronic equipment mean that parents can use a wide range of offers. According to parents, children most often use TV at home (52%), followed by smartphones (31%) and tablets or computers (17%). According to children (70%), parents do not set any rules for using media at home.

I can as much as I want, whenever I want. Until the parents come back home from work, and that's a long time. My brother and I take turns playing for a long time; Long, because parents are long at work; They do not say, I turn it on myself and when I get bored with watching I turn off and go to play. (from interviews with children)

Pre-schoolers (21%) may use them even more than 4 hours a day. Children spend this time alone (45%) because parents (57%) are busy with household and work duties. Even though every second child (55%) spends free time with their parents, this is time very often spent passively using a TV or tablet.

While in kindergarten, children also have access to new technologies. They use them primarily for learning (e.g. coding, programming) and play (e.g. using educational websites). In the facility, children have organized time for various activities. Teachers use media tools every day when working with children, but the time spent with digital media is not very long. Thanks to the use of new technologies in kindergarten, children have the skills to search for interesting games on the Internet.

We can conclude that even the youngest children use media tools at home in a way that is not controlled by their parents. While in kindergarten, children learn the rational and correct use of media while playing and learning.

Media competences (2)

Parents (71%) and teachers (69%) rate their children's media literacy at the average level. According to the media competence levels proposed by the authors, the average level means that the analyzed group of children represents a sufficient amount of knowledge and skills when using new media. According to the analysis of the research material, children use new media without major problems, they can use media technologies quite regularly – every day, with a little help from adults. They use ready-made content, and very rarely create materials on their own. Conversations with children show that they watch programs that are inappropriate for them due to their age (97%) and have no knowledge about the Internet (91%). Because no one talks to them about this topic – despite the fact that most of them (according to parents 56%) started contact with new media before the age of two. As a result, most teachers (69%) see a great need for training prepared for parents. Parents themselves see in the use of the media both advantages and disadvantages. They are aware that the media pose a threat of addiction (40%), but at the same time they are a source of information and knowledge about the world for their children (25%) (cf.: Izdebska, 2007; Patzlaff, 2008; Spitzer, 2013; Ogonowska, 2018). Few parents (10%) believe that they can cause difficulties in children's speech development and thus problems in communication (Spitzer, 2016, pp. 219-241). According to teachers (63%), new media in kindergarten are not necessary.

I would really limit this technology only to the necessary minimum. I believe that this is not yet time for children to spend time in kindergarten looking at the monitor. At home, as kindergarten children say, they have a really big contact with the media. (from interviews with teachers)

Children can organize their play without using the media. Despite this, when they return home, they most often use a tablet and smartphone (66% of children say so). They imitate the behavior of their parents, who (70%) point out that children are able to use media tools on their own, which is related to their approval. They allow children to use them, treating the tools as a some kind of “nanny”.

Research on Internet content and use shows that the global web does not offer the best culturally and socially valuable services (Goban-Klas, 2000, p. 226). In the light of educational influences, information “smog”, “fog” or “smoke” make it difficult for children to distinguish truth from falsehood, important information from trivial information. Problems arise

from the excessive collection and transmission of information offered by the network, fragmented and unstructured information scattered in many places, and interspersed with intentionally and consciously harmful content (e.g. pornographic) (see Morbitzer, 2007; Czerski, 2020, pp. 74-84; Tanaś, 2021, p. 96). In addition to social and educational media threats, it is worth mentioning the FoMO syndrome (*Fear of Missing Out*) – “fear of missing something by” (Can, Satici, 2019, p. 1). This syndrome may be a symptom of personality disorders, leading to information addiction – as pointed out by N. Carr (2013, pp. 112-120). This knowledge is very important for parents of future first-graders due to the fact that every child starting primary school has a smartphone. Then the peer group begins to have a more significant impact on the child’s behavior.

Media-based Learning (3)

Children are able to install games on their own tablet or smartphone, but most often they are installed by their parents themselves (65%). Very often these games are inappropriate for children’s age. Preschoolers use a variety of games, from strategic to the ones developing logical thinking. According to children (97%), they play alone. An interesting phenomenon is the interest of children in watching YouTubers (eg Doknes, Vito, Dealereq, Roxmb). Children use not only smartphones and tablets to play, but also dolls and cars. Due to the fact that they do not have the opportunity to paint, draw or cut frequently at home, very often in kindergarten they prefer art and technical classes. Children most often learn by playing alone at home and use digital tools to do so. Teachers emphasize that play is important for the development of children. Thanks to it, children “develop social and cognitive skills. Lack of play time can result in impaired motor, cognitive, and emotional development.” In order for children to learn how to use new technologies properly, teachers and parents should use diversity in the selection of media tools. Due to the excessive number of extra-curricular activities in kindergarten and after returning from it, the use of new technologies can be an important element of rest for children. Contact with literature is very important for pre-school children (cf. Bettelheim, 2012; *Foundation...*, 2023). Listening to fairy tales read by parents not only develops the imagination, but also strengthens family bonds. Unfortunately, as many as 58% of children claim that their parents do not read them fairy tales. Long time spent in kindergarten, as well as in extracurricular activities, causes children to be tired, moody and nervous when they return home. At the same time, easy access to new media can be an incentive to use them more often.

To sum up, based on the feedback obtained, children in the world of media: 1) learn through play, experimenting with tools, intensively accumulating experiences (especially sensual ones); 2) learn creativity, logical thinking, trust in digital tools, independence in searching for information, and solving problems; 3) they do not learn how to concentrate attention and self-control, how to sort and evaluate information, and the rules of safe functioning in the media reality.

The diagnosed condition of the ICT infrastructure provides children with free access to digital devices and the Internet at home and in kindergarten. Preschoolers see network technologies as tools that develop their interests and cognitive curiosity. According to the analysis of the research material, children use media tools quite regularly – every day, with a little help from adults. This is possible thanks to the unlimited availability of these devices, which is also confirmed by statistical data of the Central Statistical Office (GUS, *Information society...* 2022). Most households even have several devices, which can also be concluded from conversations with children.

The Relationship between Children’s Opinions & Parents’ Perceptions on the Media Tools Usage (4)

Unlimited access to media tools in every home means that every child uses them, and most often uses the phone, tablet and television– every day for several hours. The ANOVA test indicated differences in children’s and parents’ opinions about the media tools used by preschoolers (Tables 1, 2, 3).

Table 1. ANOVA illustrating the existence of differences between the use of different media tools by preschoolers in the opinions of children themselves and their parents (N=200)

Tools used by preschoolers		Sum of squares	Df	Mean square	F	Significance
Telephone	Between groups	2.645	1	2.645	2.276	.133
	Inside groups	230.150	198	1.162		
	Total	232.795	199			
Tablet	Between groups	41.405	1	41.405	26.213	.000
	Inside groups	312.750	198	1.580		
	Total	354.155	199			
TV	Between groups	61.605	1	61.605	38.509	.000
	Inside groups	316.750	198	1.600		
	Total	378.355	199			

Source: own research

Table 2. Strong equality tests of means for variables that did not maintain homogeneity and concerning differences between the use of a phone and a tablet by preschoolers in the opinions of children themselves and their parents (N=200)

Use your phone and tablet with your children		Statistic ^a	df1	df2	Significance
Telephone	Welch	2.276	1	196.541	.133
	Brown-For-sythe	2.276	1	196.541	.133
Tablet	Welch	26.213	1	190.705	.000
	Brown-For-sythe	26.213	1	190.705	.000

Asymptotic F distribution.

Source: own research

Table 3. Differences in averages and other overall data on differences between parents and children in the declared scope of use of media tools (N=200)

Use of phone, tablet, and TV by children		N	Avg.	SD Lower limit	SE Upper limit	95%		Variance
Tele- phone	Parent	100	1.0100	1.12362	.11236	.7870	1.2330	
	Child	100	.7800	1.03064	.10306	.5755	.9845	
	Total	200	.8950	1.08158	.07648	.7442	1.0458	
	Model			1.07813	.07624	.7447	1.0453	.01483
	Permanent effects							
	Random effects				.11500	-.5662	2.3562	
Tablet	Parent	100	.610	1.1272	.1127	.386	.834	
	Child	100	1.520	1.3742	.1374	1.247	1.793	
	Total	200	1.065	1.3340	.0943	.879	1.251	
	Model			1.2568	.0889	.890	1.240	.3983
	Permanent effects							
	Random effects				.4550	-4.716	6.846	
TV	Parent	100	2.1900	1.36104	.13610	1.9199	2.4601	
	Child	100	1.0800	1.16063	.11606	.8497	1.3103	
	Total	200	1.6350	1.37887	.09750	1.4427	1.8273	
	Model			1.26481	.08944	1.4586	1.8114	.60005
	Permanent effects							
	Random effects				.55500	-5.4169	8.6869	

Avg. –average; SD – Standard deviation; SE – Standard error; 95% – 95% confidence interval for the mean; Variance – Intergroup variance.

Source: own research

According to the established data, significant differences are visible in the declaration regarding the use of tablets and television by children. Children are much more likely to admit to using tablets than their parents say (Brown-Forsythe=26.213; $df_1=1$; $df_2=190.705$; $p<0.001$). On the other hand, parents are more likely than children to mention the TV as a tool used by children ($F(1, 198)=38.509$; $p<0.001$). This result is important because it shows that parents do not pay too much attention to their children at home. It may be assumed that parents are not aware of how their children use the new technologies in the home. Taking into account the ease of use of the tablet, its size and the availability of using it anywhere in the house, children more often chose this device. Additionally, taking into account the children's answers about the most frequently watched programs on TV – and these were the programs chosen by parents – the tablet allows them to decide for themselves what they want to watch and what to play. They then become independent in their choices. What is worrying, however, is the fact that it confirms that parents do not control what their children watch, and thus how much time they spend in the virtual world. This thesis is confirmed by the results concerning the time children devote to contact with new media. Most often it is 2 hours, but very often this time is over 4 hours (cf. *Teens 3.0...*, 2019).

Differentiating Factors (5)

In the context of the media tools used by children, as well as their media competences and factors relevant to the learning process of preschoolers – factors differentiating these relationships have been identified in these areas. Among the differentiating variables, the following are distinguished: 1) child's gender; 2) gender, age, and education of parents; 3) teacher's age, teacher's degree of professional advancement, type of educational institution, availability of training. The assumed differentiating variables were subjected to statistical analysis, in which the chi-square independence test was used. Thanks to this method, the question of whether the considered variables significantly differentiate the studied class of phenomena was answered. The calculations – which were based on data obtained from the surveyed children, parents, and teachers – showed statistical differences in only one case.

The obtained results clearly indicate that the media tools used by preschool children do not depend on their gender. When analyzing the relationship between opinions on children's media competence and the gender, age and education of parents, no differences were noted either. Parents assessed these competences at the average level. According to the proposed

levels of children's information competence, this level implies a sufficient amount of knowledge and skills when using new technologies. The largest group of parents surveyed were people aged 31-40, more than half (54%) of the respondents were parents with higher education. The consistency and accuracy of their assessments can be attributed to belonging to Generation Y (Millennials), also known as the digital generation.

The characteristics of teachers (such as: age, type of institution in which they work, as well as availability of training) also do not differentiate opinions about the level of competence of children learning through the media. Only teachers' professional advancement degrees differentiated their opinion on the level of children's media competences ($\chi^2=10.570$; $\alpha=0.05$; $df=3$, $p=0.014$; strength of the compound "strong"; Phi, Cramer's $V=0.81$). According to contract teachers, children's media competences are at the secondary level, while the certified ones are at the low level. In general: the higher the level of professional advancement, the lower the assessment of the level of competences represented by six-year-olds. It can be concluded that along with improving the qualifications of teachers, degrees differentiated their opinion on the level of children's media competences. Parents' knowledge, unlike teachers' knowledge is not verified in this area. A teacher improving his/her professional competences is in a continuous process of self-fulfillment, and thus in a continuous learning process. Teacher's knowledge and skills at every stage of promotion are developed and updated (Czerepaniak-Walczak, 2006, pp. 128-143).

Summary

The results of the environmental studies carried out are confirmed by numerous references in the literature (cf. Morbitzer, 2014; Miczka, 2015; Bednarska, 2020; Jelinek, 2020). They revealed that in a child immersed in media reality, a decrease in the ability to focus and concentrate on the task is observed. Due to the "overstimulation" of the mind (Kaczan et al., 2012, pp. 71-72), the child is often unable to cope with the overload of information provided in a short time (Zegarow, 2019, p. 30). Too strong stimulation, instead of stimulating development, may cause the nervous system to not accept new stimuli – which is related to the phenomenon of habituation, difficulties in focusing on tasks requiring mental effort. Pre-school children are often unable to consciously choose the information they receive in contact with the media, it is difficult for them to distinguish the real world from the virtual world. Symptoms of addiction to new technologies, sensory impairment and loneliness are observed in children. During their stay in

the kindergarten, teachers provide children with information on the proper use of media, which, as they claim, supports the development of creativity, logical thinking, mathematical and language skills. Children who use media frequently are reluctant to engage in physical activity, preferring to stay at home and play computer games or watch TV (cf. Desmurget, 2012; Spitzer, 2016). Children are characterized by low awareness of the safe use of new technologies. Parents do not take up this topic because they do not see such a need. As digital natives, they take the media for granted. Therefore, children by observing their parents learn to treat the media in a similar way. Unlimited access to new technologies makes children excessively use several types of gadgets, electronic toys. They often show an attitude towards consumerism.. Parents busy with household and work duties, but also with the desire to stay up to date in the virtual world (social media),, do not devote the right amount of time to their children. Their relationships with children are often disturbed. Therefore, the role of teachers and parents should be to provide children with appropriate (safe and love-based) conditions for development – in accordance with the idea of constructivism – ensuring the construction of the child’s knowledge as a result of selection, interpretation, and sensory experience.

Analyzing the perspective of 6-year-olds’ media reality, in general one can notice a discrepancy between the opinions of children, their parents and teachers. The basic feature and the greatest advantage of children is their infantile approach to everyday affairs. The studied preschoolers, building an image of their own reality, reveal a sufficient level of efficiency in using digital tools. This enables them to use media equipment, internet technologies and teaching materials widely and without any problems. Is. The modern preschooler can passively use the Internet. Preschooler treats new media as a natural environment for everyday functioning. Child uses the network as entertainment – games and activities that provide him/her with variety and relaxation (however, they may cause addiction). The activities undertaken by preschoolers satisfy their needs for fascination with modern technology. Research has revealed children’s positive attitude towards the technology they use every day. Despite thinking the Internet is dangerous, they use it every day. In the case of preschool children, parents and teachers play the most important role in building knowledge about the media,. Even though in kindergarten children are taught about the rules of using media tools, at home these rules are not followed. Most children reveal that they explore the resources of the global network on their own – exploring the Internet in search of interesting games, activities, movies.

Research highlights significant discrepancies between children's opinions and parents' perception. Differences of opinion concern the use of new technologies by children at home, the application of rules governing the use of media tools, as well as children's preferred programs watched on television.

Therefore, in relation to the research results, the most important recommendations for parents and teachers include: 1) participation of parents in trainings, workshops, meetings with authorities dealing with the impact of the media on children's development; 2) parents and children should establish rules for the use of new technologies, which should be consistently followed by both parties, thus shaping the awareness of proper exploration of new media; 3) parents should learn about parental control programs and applications and install them on every device available to children; 4) when working with children, teachers should raise problems and explain in a playful way the rules related to the use of new technologies by children; 5) teachers should keep moderation in the use of new technologies by children in kindergarten and balance them with other activities; 6) educational establishments should provide systematic training for teachers to help educators develop media competences.

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