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TECHNOLOGY IN THE CLASSROOM: UNPACKING TEACHERS' VIEWS ON PRESCHOOL TECH USE

Annotation. The integration of technology in preschool classrooms has become a prominent topic in early childhood education, sparking diverse opinions among educators. This study explores preschool teachers' perspectives on the use of technology in early learning environments, focusing on its benefits, challenges, and implications for teaching practices and child development. Data were collected through interviews with teachers from diverse educational settings. This study is a qualitative one. 10 preschool teachers participated in the study. The findings reveal that while many educators acknowledge technology's potential to enhance learning experiences, particularly in fostering digital literacy and interactive engagement, concerns persist regarding screen time, developmental appropriateness, and the potential for reduced hands-on and social interactions. The study underscores the necessity of developing thoughtful strategies and policies that align technology use with developmental goals, ensuring its role as a supportive, rather than dominant, component of preschool education.

Key words: preschool, technology, teacher, qualitative study.

Анотація. Інтеграція технологій у дошкільні класи стала помітною темою в дошкільній освіті, що викликало різні думки серед педагогів. У цьому дослідженні досліджуються точки зору вихователів дошкільних закладів щодо використання технологій у середовищі раннього навчання, зосереджуючись на

їхніх перевагах, проблемах і наслідках для педагогічної практики та розвитку дитини. Дані були зібрані під час інтерв'ю з вчителями з різних навчальних закладів. Це дослідження є якісним. У дослідженні взяли участь 10 вихователів дошкільних закладів. Отримані результати показують, що хоча багато педагогів визнають потенціал технологій для покращення навчального досвіду, зокрема у розвитку цифрової грамотності та інтерактивної взаємодії, зберігаються занепокоєння щодо часу, проведеного за екраном, доцільності розвитку та потенціалу для зменшення практичної та соціальної взаємодії. Дослідження підкреслює необхідність розробки продуманих стратегій і політики, які узгоджують використання технологій з цілями розвитку, забезпечуючи їх роль як допоміжного, а не домінуючого компонента дошкільної освіти.

Ключові слова: *дошкілля, технологія, педагог, якісне навчання*

Introduction. Technology, in its simplest sense, is technical science, a method of putting theoretical knowledge into practice. Technological developments have affected education and made it an inseparable part of it. In this case, not the use of technology in education, but how to use it has become a subject of research. The starting point in education is preschool education. The most important time that should not be wasted, the preschool age, also requires the correct use of technology. Children should be introduced to technology, but importance should be given to its correct use. The technology used in preschool education should be suitable for the developmental characteristics of children [9]. Research on young children's use of technology is scarce. Only in studies conducted by some academics, it has been determined that ninety percent of preschool children spend most of their time in front of a screen. In a comprehensive study conducted by the American Academy of Pediatrics, a warning was made that children under the age of two should not be exposed to visual media. According to the results reached by Zimmerman and his colleagues, the reason is shown as the retardation in cognitive and language development [3]. The use of technological devices in preschool and school-age

children causes physical, mental, psychological and health problems. These are the problems encountered as obesity, laziness, sleepiness, aggression and lack of attention. Education and technology are two important areas that interact with each other [3] explained the main purpose of using technology in education as the teacher, student, family and school administration becoming self-sufficient in technology, being able to use technology for their purposes and benefit from it, and while doing all these, integrating it into the school culture and being a pioneer for new technologies. In order to achieve this goal, teachers have important duties. In order for teachers to effectively fulfill these duties, they need to receive pre-service and in-service training on technology and its use. Teachers, who are one of the important pillars of education that cannot be considered separate from society, are also expected to easily adapt to new technologies and effectively utilize technology in their lessons. Nowadays, questions such as «How? When? Where? Why should computers be used for the 3-6 age group? How should the computerized teaching environment be organized?» have gained importance. While children in early childhood explore their surroundings, they are also interested in everything around them. Considering that we are raising individuals for the information age, it is necessary to present computers in a way that children can use effectively from a young age. Computer activities should be selected following the developmental levels of children. Computers strengthen five basic developmental areas in children (social and emotional development, language development, motor development, cognitive development and learning tendency). The contribution of technology to these developmental areas will be briefly discussed in the following section of the study. It is a matter of debate that technology may not meet developmental needs in the preschool age. It is stated that there is a danger that it will reduce games requiring physical movement, social relationships and activities in the natural environment; that it will miss out on the integration of skills such as music, art, dance, certain social skills and moral values and countless different skills. On the other hand, according to the results obtained on the level of recall, according to Yürütücü's report from Philips; «People remember 10% of what they read, 50% of what they see and hear, 20% of what they only hear,

70% of what they say, 30% of what they only see, and 90% of what they do and say». These rates obtained by keeping the time factor constant reveal the need for creating multi-environment learning situations in education [14]. Television in education is seen as a suitable tool in terms of appealing to different senses. In addition to its accessibility, it provides positive contributions in terms of cognitive, social, language development and psychomotor aspects in preschool education. It also makes learning fun and can offer effective and numerous experiences that real life cannot provide. The positive effects of television on imagination and creativity have been revealed by Zimmerman and his friends. The correct use of technology for children in the preschool period can be achieved with the knowledge and competence of educators on this subject. For this reason, the skills of the educator to prepare, organize and use preschool education programs appropriately are considered important [6] states that children around the age of three are not suitable for teacher-centered learning and that different learning styles should be used. Appropriate technologies can be useful in meeting this need. However, it should be noted that the use of technology can cause an emphasis on academic skills and neglect developmental activities. In addition to the positive aspects of computers, the negative aspects of early childhood are also emphasized. In this regard, it is believed that the ease of access to computers prevents children from being determined, learning mastery, social adaptation and learning to survive in difficult conditions. These are always present in preschool education and primary schools, which have limited resources under the pressure of politicians and parents, but they are realistic fears. The use of technology in early childhood education can provide many educational benefits, but it should be progressed by making smart choices with careful examination and research. While using interactive environments that can be used in preschool, it should not be forgotten that they cannot replace face-to-face interaction with people and materials in learning. Technology can be used as only one way among many in early childhood education. Therefore, it needs to be used in a balanced and creative way [5]. It can be seen that educators in preschool education need training in order to meet expectations in terms of using technology and tools and successful applications [8]. As a result; whether

technology will be used in preschool education and if so, how it will be used should be clarified. Perhaps, integrating technology into programs will provide positive contributions and be the most important task in solving such a problem.

Purpose of the Research. The purpose of this research is to determine the place of technology use, which has an important place in our lives, in children's lives and the effects of technology use in and out of school according to the views of preschool teachers, preschool teacher candidates and parents.

The research question «What are the effects of technology use on the development of preschool children?» is addressed as the main problem of the research.

Research Results.

Research Model. A qualitative research method was used in this study. Qualitative research is a type of research in which qualitative data collection methods such as observation, interview and document analysis are used, and a qualitative process is followed to present perceptions and events realistically and holistically in a natural environment [13]. The study is in the phenomenological design of qualitative research types. The opinions of preschool teachers and other parents were used, and the qualitative research method was used to obtain information on how often preschool children use technology and how they are affected by technology, and content analysis was used in the analysis of the data obtained from observations and interviews.

Working Group. The working group of the research consists of 1 primary school with a kindergarten class and 10 preschool teachers in this school affiliated with the Ministry of National Education located in Konya City Center in the 2020-2021 academic year. The working group of the research was determined using the easily accessible case sampling method, which is one of the purposeful sampling methods used in qualitative research. Purposeful sampling works on a sample determined for a specific purpose [10]. In this context, the easily accessible case sampling, which is one of the purposeful sampling methods that allow the selection of volunteer and easily accessible preschool teachers, preschool teacher candidates

and parents of preschool children who are suitable for the researcher, was used in determining the working group of the research.

Data Collection Tools. An interview form was created by the researchers during the data collection phase. An interview is to ask detailed, qualitative questions about a subject to an interviewee and to obtain detailed and in-depth information about the subject. The interview technique is an observation technique that provides flexibility and depth to the researcher and the person being interviewed [2]. The interview technique can be done with a single person or with a group; it is a study conducted by talking mutually, asking questions and recording the information received [1]. An unstructured interview form prepared by the researchers was used to obtain the data in the research. The unstructured interview technique of the interview method was used. In the unstructured interview, the questions are open-ended, and in-depth data collection is possible. This type of interview is a powerful technique that helps obtain rich and valuable data. 10 questions were prepared following the purpose of the research.

Fındıngs. In this section, in line with the purpose of the research, 1 primary school affiliated with the Ministry of National Education located in the city center of Konya in the 2020-2021 academic year and including a kindergarten, and 10 preschool teachers in these schools participated in the research. The participants' opinions on the use of technology in the preschool period were examined through their answers to the unstructured questions. In line with this purpose, the findings obtained by analyzing the interview data are included.

FINDINGS.

1. What are the benefits of using technology in preschool education?

Teacher 3: «Today, there is hardly an area without technological screens, children are introduced to screens such as phones, tablets, and TVs from the moment they are born and start watching programs whose content is unknown. It would be much more efficient for technology to be with applications that contain meaningful and useful content rather than being a negative addiction in their lives. As an educator who has adopted natural learning approaches, I consider the greatest

benefit to be using screen addiction positively. I can say that other possible benefits are that they are ready for a future that is thought to be integrated with technology and that they carry the requirements of their age with their predisposition to technological tools».'

2. Which technological tools should a preschool teacher use in the classroom?

Teacher 9: «A preschool teacher can use tools such as CD players, computers, smart boards, TVs, and Unit Data Shows in the classroom environment».

3. Which developmental areas (language development, social development, motor development) does technology use contribute positively/negatively to preschool children?

Teacher 8: «Technology can be used in every field as long as it is used appropriately».

Teacher 4: «When a musical infrastructure is needed in in-class activities when animation/film needs to be watched, etc.»

Teacher 3: «It can contribute positively to receptive language development in the field of language development, but it will contribute negatively to expressive language development. It contributes negatively to social development because social development generally develops when the child is playing, the child needs parks and real friends to socialize. I think it also contributes negatively to motor development in general. If the child does not move, large muscle skills do not develop very effectively. Maybe it can contribute positively to small muscle skills to some extent».

5. What are the points to consider when using technology?

Teacher 10: «It can be presented within a certain period. The age is the age of technology and depriving the child of this means not preparing them for the time they live in. It is more beneficial after drawing boundaries».

6. How often should preschool children be allowed to use technology?

73% of teachers, 40% of parents and 50% of teacher candidates said that care should be taken to ensure that it is appropriate for the child's age and development level, 12% of teachers, 20% of parents and 40% of teacher candidates said that a time

limit should be set for the child, 15% of teachers, 40% of parents and 10% of teacher candidates said that children should not be allowed to use technological devices. 91,7% of participants generally stated that children's use of technology should be appropriate for their developmental levels and ages.

7. What kind of a method should be followed to protect children from the dangers they may encounter while using the internet?

Teacher 9: «Preschool children should use it as little as possible. Children of this age group should be directed to active games, and their psychomotor development should not be hindered by allowing frequent use of technology».

8. What should be considered when limiting the use of technology in preschool children?

45,8% of the participants stated that a family filter should be used; 29,2% stated that children should be directed to other activities; and 25% stated that they would watch with the child.

9. What methods should be used in children's reactions to restrictions on technology use?

Teacher 2: «I think age-appropriateness is the most important factor here».

Teacher 10: «The reliability of social areas and age level should be taken into consideration».

10. How should a preschool child be a model in technology use?

Teacher 5: «First of all, while setting daily limits for children, parents should also set limits for themselves. Parents who determine their child's screen time and experience screen addiction throughout the day cannot be the right role models for their children. They should be role models by using technology and technology athletes when they should be used and for their intended purposes».

Conclusıons. The widespread use of technology and especially computers in the world today leads educators to question where and how this tool will be used, especially in early childhood, and how technological devices can be used appropriately in preschool education. There is little known about the effect of electronic environments on the development of young children, and much that is not

known. As a result, it becomes clear that much more research is needed on the effect of electronic environments on early childhood development [12]. It can be seen that educators in preschool education need training in order to meet expectations regarding the use of technology and tools and successful applications. The use of technology, which is now inevitable in today's society, is also included in the education of preschool children. In this case, what should be done is to focus on how to use it effectively and correctly. The results obtained from the views of preschool teachers, teacher candidates and parents on children's use of technology are as follows: The technology corner should be just one of the other learning corners in the classroom, children should be allowed to use it and enter it. -computer usage time should not be used as a reward for other activities, children should be given plenty of time to use the computer, and they should be allowed to understand what will or will not happen. Resources that should be spent on materials required for important and basic activities should not be spent on computers. These important materials can be things like art materials, bricks, books, play dough, water tables and playground materials. Although preschool teachers, who participated in the research did not reach a definitive judgment on the appropriateness of children's use of technology, they claimed that they could not do anything other than keep up with the times even though they knew its effects (positive/negative) on their development levels. As a result, technology should be used where it is most effective, in the most effective way, in providing learning suitable for different learning styles and in creating situations that bring the world into the classroom.

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