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# DIGITAL GENERATION CHILDREN: THE IMPACT OF GADGETS ON EARLY CHILDHOOD SPEECH AND ATTENTION DEVELOPMENT

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**Abstract:** This article analyzes the impact of gadgets on the speech and attention development of growing children in the era of modern digital technologies. It examines the changes in speech activity, attentional stability, and cognitive processes resulting from the use of tablets, phones, and other digital devices by young children. Additionally, the article analyzes the positive and negative aspects of gadget usage based on scientific sources and offers recommendations for parents and educators.

**Keywords:** digital generation, gadgets, speech development, attention, cognitive development, preschool age, psychology, child development.

## Introduction

The 21st century is characterized as the era of information technologies and digital communications. Today, digital technologies occupy an important place in almost all spheres of human life. In particular, smartphones, tablets, computers, and other electronic devices have become an integral part of our daily lives. This process has also significantly influenced children's upbringing and development. Modern children grow up in direct contact with the digital environment from an early age. Therefore, today's generation is often referred to as the "digital generation."

Early childhood is considered one of the most important stages in a child's psychological, cognitive, and social development. It is during this period that speech develops, and fundamental psychological processes such as attention, thinking, and memory begin to form. Children learn about their environment mainly through communication, play, and active experience. Live interaction with parents and adults is a crucial factor in enriching children's vocabulary, developing stable attention, and forming social skills.

In recent years, the level of children's use of gadgets has increased dramatically. Many parents provide children with smartphones or tablets to calm or occupy them. As a result, children become accustomed to spending a certain amount of time in front of screens every day. This phenomenon has been evaluated from different perspectives by specialists. Some researchers argue that digital technologies enable children to acquire new knowledge more quickly, while others note that

excessive use of gadgets may slow down speech development, reduce attention span, and decrease social interaction.

Psychological studies indicate that speech development in preschool children mainly occurs through active communication and play activities. If a child primarily acts as a passive recipient of information, merely watching images on a screen, speech activity may not develop sufficiently. Furthermore, rapidly changing images and bright visual effects can also influence children's attentional systems.

Literature Review

1. In his psychological studies, **E. G‘oziev** emphasized that children's speech development is directly related to the social environment and active communication.
2. **L.S. Vygotsky** paid special attention to the role of the social environment in children's psychological development. According to his theory, child development is primarily shaped through social activities.
3. Contemporary studies indicate that gadget use may affect children's attention processes. Some scholars argue that rapidly changing screen images and bright visual effects may shorten children's attention span, resulting in reduced attention stability.
4. Some scientific sources also highlight that appropriate and moderate use of gadgets can yield positive outcomes. For instance, interactive games and educational applications may contribute to the development of memory, thinking, and certain cognitive skills in children. Therefore, specialists emphasize not the complete prohibition of gadgets, but rather their proper regulation and controlled use.

Research Methodology

The present study employed observation, questionnaires, pedagogical analysis, and comparative methods to determine the impact of gadgets on the speech and attention development of school-aged children. The research was conducted among mixed-age children at Secondary School No. 55 in Andijan city.

**Table 1. Research Participants**

| Group | Number of Participants | Percentage (%) | Description |
|---|---|---|---|
| Experimental group | 30 | 50% | Children using gadgets for 1.5–3 hours per day |
| Control group | 30 | 50% | Children with limited gadget use (30–40 minutes) or very little use |
| Total | 60 | 100% | Preschool-aged children |

**Table 2. Research Methods**

| No. | Method | Percentage (%) | Brief Description |
|---|---|---|---|
| 1 | Observation method | 40% | Children's speech, play activities, and attention levels were observed |
| 2 | Questionnaire method | 25% | Parents were surveyed regarding children's gadget usage habits |
| 3 | Pedagogical analysis | 20% | Speech development and attention stability were assessed |
| 4 | Comparative method | 15% | Results of the experimental and control groups were compared |
| Total | | 100% | |

**Table 3. Research Stages**

| Stage | Stage Name | Percentage (%) | Activities Conducted |
|---|---|---|---|
| 1 | Preparatory stage | 30% | Scientific literature was reviewed, and research plans were developed |
| 2 | Practical research stage | 50% | Observations and questionnaires were conducted, and data were collected |
| 3 | Analysis stage | 20% | Results were analyzed and generalized |
| Total | | 100% | |

Research Results and Discussion

During the study, the speech development and attention stability of children in both the experimental and control groups were examined. The findings revealed that children who used gadgets for extended periods demonstrated relatively lower levels of speech development and attention stability in certain cases. In particular, due to reduced live communication with adults and peers, these children exhibited slower vocabulary growth and speech development.

In contrast, children in the control group demonstrated relatively higher levels of speech development and attention because they engaged more frequently in play, communication, and physical activities. At the same time, it was found that children who used gadgets moderately had developed certain cognitive skills.

The results showed that the proportion of children with a high level of speech development was 50% in the control group, whereas this figure was only 30% in the experimental group. This finding indicates that excessive gadget use may negatively affect children's speech development.

The study findings suggest that excessive use of gadgets may adversely affect children's speech development and attention stability to some extent. This is because gadgets often place children in a passive information-receiving role, resulting in reduced opportunities for live communication.

However, the findings do not imply that gadgets should be completely abandoned. On the contrary, moderate and supervised use of gadgets may contribute to the development of certain cognitive abilities in children. Therefore, parents and educators should regulate children's screen time and encourage greater involvement in communication, play, and creative activities.

Conclusion

The findings of the study indicate that modern information technologies and gadgets have become an important part of children's lives. In particular, digital devices are increasingly integrated into the lives of preschool children. However, excessive and uncontrolled use of such devices may negatively affect children's psychological development, particularly speech development and attention stability.

The study demonstrated that lower and moderate levels of speech development were more common among children who frequently used gadgets. The primary reason for this was identified as reduced live communication with parents and peers. Since children's speech mainly develops through communication, play, and social interaction, spending excessive time in front of screens may hinder adequate speech development.

Furthermore, the findings revealed that excessive gadget use also affects children's attention processes. Rapidly changing images and bright visual effects on screens may increase the likelihood of shorter attention spans. Consequently, children may become easily distracted during games or learning activities.

Nevertheless, gadgets also have positive aspects. When used appropriately and in moderation, they can contribute to the development of certain cognitive skills. For example, educational applications may help children distinguish colors, recognize shapes, and improve memory. Therefore, rather than completely prohibiting gadget use, it is important to ensure that their use is purposeful and supervised.

In conclusion, live communication, play activities, and the social environment play a crucial role in children's speech and attention development. Parents and educators should monitor children's gadget use and involve them more actively in physical games, creative activities, and interpersonal communication. This will contribute significantly to children's healthy psychological development and future educational success.

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