

THE RELATIONSHIP BETWEEN GADGET USE AND VERBAL DEVELOPMENT IN NURUL INSANI NGORO MANDURO KINDERGARTEN

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ABSTRAK

Latar Belakang : Masa emas adalah saat anak berkembang pesat dan terjadi pada anak sampai usia 5 tahun. Pada masa ini, anak-anak dikenalkan dengan gadget. Pengguna gadget saat ini tidak hanya orang dewasa tetapi juga remaja bahkan anak-anak prasekolah. Anak-anak yang sering menggunakan gawai seringkali lupa dengan sekitarnya. Mereka lebih suka bermain menggunakan gadget daripada bermain bersama dengan teman-teman di lingkungan tempat tinggalnya. Sehingga interaksi sosial antara anak dengan masyarakat, lingkungan sekitar berkurang Dan anak juga mengalami keterlambatan bicara karena sering menggunakan gadget. Gadget memiliki pengaruh yang sangat besar dalam kehidupan manusia, karena gadget dapat mempermudah pekerjaan manusia, dan juga memberikan kemudahan bagi manusia dalam berinteraksi dengan orang lain. Penelitian pendekatan kuantitatif.

Tujuan mengetahui hubungan gadget dengan perkembangan verbal pada anak TK

Metode Populasi adalah seluruh anak prasekolah di kelas A TK Nurul Insani yang berjumlah 40 anak. Variabel terikatnya adalah perkembangan verbal anak prasekolah, variabel bebasnya adalah penggunaan gadget. Analisis dilakukan dengan menggunakan uji Chi Square dengan $\alpha = 0,05$

Hasil penelitian menunjukkan bahwa ada hubungan antara status gizi ($p = 0,004$). Kesimpulan dari penelitian ini adalah ada hubungan antara pengaruh penggunaan gadget terhadap perkembangan verbal anak prasekolah.

Kesimpulan Berdasarkan penelitian yang telah dilakukan, dapat disimpulkan bahwa ada hubungan antara pengaruh penggunaan gadget terhadap perkembangan verbal anak prasekolah.

Saran bagi orang tua diharapkan untuk mendampingi anaknya saat menggunakan gadget dan mengawasi penggunaan gadget pada anak sehingga dapat mengurangi dampak negatif dari penggunaan gadget.

ABSTRACT

Background :The golden period is when children develop rapidly and occur in children up to the age of 5 years . At this time, children are introduced to gadgets. Today's gadget users are not only adults but also teenagers and even preschoolers. Children who often use gadgets often forget their surroundings. They prefer to play using gadgets rather than playing together with friends in the neighborhood where they live. So that social interaction between children and the community, the surrounding environment is reduced And children also experience speech delays because they often use gadgets. Gadgets have a very big influence in human life, because gadgets can facilitate human work, and also provide convenience for humans in interacting with other people. Quantitative approach research.

The purpose of knowing the relationship of gadgets with verbal development in kindergarten children

Methods The population is all preschool children in class A TK Nurul Insani a total of 40 children. The dependent variable is the verbal development of preschool children , the independent variable is the use of gadgets. The analysis was carried out using the Chi Square test with $\alpha = 0.05$

Results showed that there was a relationship between nutritional status ($p = 0.004$). The conclusion of the study is that there is a relationship between the influence of using gadgets on development preschool children's verbal.

Conclusions Based on the research that has been done , it can be concluded that there is a relationship between the influence of using gadgets on the verbal development of pre-school children.

Suggestion that parents are expected to accompany their children when using gadgets and supervise the use of gadgets in children so as to reduce the negative impact on the use of gadgets .

Keywords: Preschool, verbal development, gadgets .

INTRODUCTION

The golden developmental period occurs in the first 5 years of a child's life or what is commonly called the *Golden period*. At this time children usually begin to enter the pre-school period. The pre-school period is a time when children begin to prepare themselves to enter the world of school through play groups, children who previously only received informal education from parents or family, will begin to get to know the environment outside the home and will meet their peers at school (Imron, 2018).

Based on the Indonesian Health Demographic Census (IDHS) in 2015 the number of students aged 0-6 years was 26.09 million children. Of this number, 13.5 million of them aged 0-3 years and 4-5 years old reached 12.6 million, of which around 14.8% experienced developmental delays (Central Bureau of Statistics, 2017). According to the Indonesian Doctors Association (IDAI) of East Java, when examining 2,634 children aged 0-72 months, 53% of normal development results were found, 13% doubted and 34% developmental deviations. From the results of the examination, it was found that there were 10% deviations in the gross motor aspects, 30% fine motor skills, 44% speech and language and 16% socialization and independence (Ahmad, Suryawan, 2010). According to the NCHS, based on parental reports (excluding hearing loss and cleft palate) the incidence is 0.9% in children under 5 years of age and 1.94% in children aged 5 to 14 years. Some data show that the incidence of children with *speech delay* is quite high. Communication disorders and cognitive disorders are part of childhood developmental disorders, occurring in about 8%. From the results of a direct evaluation of school-age children, the incidence is 3.8 times higher than that based on the results of interviews. Based on this, it is estimated that speech and language disorders in children are around 4% to 5% (Soetjningsih, 2013). According to research in 2011 by Hartanto, explained that in 2007 at the child development clinic, Dr. Hospital. Kariadi Semarang found that 22.9% of the 436 new visits came with complaints of speech delay, 13 (2.98%) of them had language development disorders. Children with language disorders in preschool 40% to 60% will have difficulty learning in written language and academic subjects (Hartanto, Selina, H, & Fitra, 2016).

Gadget is an electronic device or instrument that has a practical purpose and function, especially to help human work. A small electronic device that has a special function. These include *smartphones* such as *iPhones* and *BlackBerrys*, as well as

notebooks (a combination of portable computers such as notebooks and the internet) (C. et al., 2013; Rosen et al., 2014). The gadget itself can be a computer or smartphone. Laptop, tablet, cell phone or smartphone (Novianti, Garzia, Early Childhood, Riau, & Negeri Jakarta, 2020).

Today's gadget users are not only adults but also teenagers and even preschoolers. Children who often use gadgets often forget their surroundings. They prefer to play using gadgets rather than playing together with friends in the neighborhood where they live. So that social interaction between children and the community, the surrounding environment decreases, even fades (Manumpil, Ismanto, & Onibala, 2015). The level of popularity of gadgets among children cannot be separated from the characteristics of gadgets that attract children. In general, gadgets are electronic devices that are relatively small in size and have special functions and are practical in their use (Syofia Sapardi, 2018). Gadgets have a very big influence in human life, because the existence of gadgets can facilitate human work, and also provide convenience for humans in interacting with other people (Suyadi, 2015).

The development of "technology and information is progressing very rapidly which is marked by advances in the field of information and technology, which can have an impact on the level of development of early childhood" (Chikmah & Fitrianiingsih, 2018; Chusna & Al-Muslihun, 2017; Suyadi, 2015). The development of increasingly advanced technology is a clear result of the development of human knowledge that can provide changes to the patterns of human life today. It is characterized by electronic items that make work easier, humans. In the era of globalization, the media in particular need to carry out social interactions to build social contacts and communicate with each other. The child has been introduced to the device by his parents from an early age and added gadgets has many interesting features that can make children feel curious. Examples include the *youtube feature* and various *online game applications* and *offline games* that can make children feel addicted to playing devices continuously (Manumpil et al., 2015). According to Sukmawati (2019), gadgets are electronic devices that have special functions on each device. Gadgets provide various facilities, for example as a communication medium, offering various applications, ranging from news and access to various sciences (Bhennita, 2019). The gadget provides applications in the form of *games* and *youtube*. The facilities contained in the device attract

the attention of parents, teenagers and children. Moreover, what will really attract children's attention to using the device is to play *games* provided by the device feature .

Based on a survey from *The Asian Parent Insight* with Samsung Kidstime through *Mobile Device Usage Among Young Kids* at the beginning of 2014, surprising results were obtained, namely as many as 98% of respondents allowed their children to use gadgets with a duration of use of more than 1 hour each time (The Asian Parent Insights and Samung Asia Pte Ltd, 2014) . According to *the American Academy of Pediatrics* almost all children and adolescents have Internet access (84%), often high speed, and one third have access in their own bedroom and spend an average of 4 hours using gadgets (Rosen et al., 2014) . According to *World Health Organization (WHO)* reports that 5 to 25% of preschool children suffer from minor brain dysfunctions, including impaired motor and verbal development (Bar-On et al., 2001) . Widati (2014) and Imron (2018), reported that 0.4 million (16%) Indonesian toddlers experience developmental disorders, both fine and gross motor development, hearing, social and emotional, and speech delays (Imron, 2018; Widiawati, 2014) .

The majority of children use smartphones (95.9 %). The largest proportion of children use gadgets for entertainment (46.7%) and games (18.9%) which are accessed in the form of online and offline videos and applications (Rahmawati, Department, Family, Consumer, & Human, 2020) . The duration of device use describes the length of time a child uses the device in one day. The most use of a technology device is a smartphone and only a small proportion use a tablet (1.3 %). The frequency of using gadgets in children is from 0.14 to 14 times/day with an average of 2.8 times/day. The duration of the use of gadgets in children ranging from 0.04 to 8 hours/day with an average of 1.8 hours/day. Almost of the children had a low level of dependence (70.5%) with an average score of 57.5. Another 4.9 percent had a high level of dependence and the rest (24.6%) had a moderate level of dependence. This means that quite a lot of children experience changes in behavior due to the use of gadgets. These behavioral changes include children being calmed by devices when they are fussy (18.0%), angry when not given a gadget (13.1%) children become less attentive to the surrounding environment and make children very focused (Chikmah & Fitrianiingsih, 2018) . In addition to social development, emotional and other developmental disorders that can be caused by gadget addiction are verbal (language) development disorders. Impaired

verbal (language) development is the ability to respond to sounds, follow commands and speak spontaneously (Kuss, 2013) . In language development, it begins with being able to mention up to four pictures, mentioning one to two colors, mentioning the use of objects, counting, interpreting two words, imitating various sounds, understanding prohibitions and so on (Jafri & Lidya Defega, 2020) . One of the important language components and a benchmark for the success of children's language development, especially reading is phonemic ability (Dyer, 2009). Phonemic ability is related to the child's ability to recognize the smallest language sounds contained in a word, namely phonemes . Children are able to detect or manipulate initial phonemes in words before detecting or manipulating final phonemes (Kurniati, 2017; Rahadianita & Prasetyo, 2017) .

Based on the above review, this study was conducted to determine the relationship between the use of gadgets on the verbal development of pre-school age children at Nurul Insani Ngoro Manduro Kindergarten located in Pasuruan. Based on the data that has been obtained, there are 40 students who are still active in school and are still in the 4-6 year age range who are in class A.

METHOD

This study uses an analytical research design with a *quantitative approach* . The population of this study were all preschool children in class A TK Nurul Insani. The data collected in the form of primary data with observation techniques using a questionnaire. The researcher distributes a questionnaire (questionnaire) containing questions that must be answered by parents or those closest to the child. The selected questionnaire is a questionnaire with closed questions, namely the answers to the questions are already available, the respondents just choose the answers according to the questions in question. This research was carried out for 4 weeks, namely in May 2021-November 2021. The research design used was *comparative* . This research was conducted with a group that was exposed to *gadgets* and a group that was not exposed to *gadgets* . The population taken in this study were all preschool children in Nurul Islami Kindergarten with a total of 40 children, so that the total population of the study was 40 children. The dependent variable in this study is the verbal development of pre-school children, while the independent variable is the use of gadgets. Conduct a test to determine the relationship of verbal development between preschoolers who use *gadgets* and preschoolers who do not use *gadgets* .

The analysis was carried out using the *Chi Square* test.

RESULTS AND DISCUSSION

Respondent's age

In this study, the research subjects were between 19 and more than 30 years old and who were active in participating in the research process

Table 1.
Characteristics of Respondents Age

Characteristics	Total (n)	Percentage (%)
Age		
19-25 Years	10	18.2
26-30 Years	12	21.8
> 30 Years	18	32.7

Subjects in this study aged > 30 years had the highest percentage of up to 32.7% with 18 respondents having an average age of 25-30 as many as 12 people (21.8%). In a study conducted by

Noorsahiha in 2016 proved that age has an influence on the use of gadgets of pre-school age children. i.e. 91% of parents allow their children to use gadgets, and 77% of children are allowed to access their gadgets. at home even though they are gathering with family and 74% of parents say that their smartphone can be used as a second caregiver, because when using a smartphone the child will sit and busy playing the device

Education and Work

Parents' education and occupation are characteristics that can determine the use of gadgets in children.

The characteristics of the respondents in this study mostly had parents who were educated at the high school-college level (62.5%) with housewives (70%).

According to research by Al-Ayoubi (2017), it is explained that around 70% of parents admit to allowing their children aged 6 months to 4 years to play mobile devices. when they are doing housework.

Table 2.
Characteristics of Respondents' Education and Employment

Characteristics	Amount (n)	Percentage (%)
Education		
Elementary-Middle School	15	37.5
High School – College	25	62.5
Work		
civil servant	2	5
Self-employed	6	15
Laborer	4	10
IRT	28	70

Data on the Frequency Distribution of Pre-School Children Using Gadgets and Not Using Gadgets in Nurul Insani Kindergarten

Table 3.
Distribution of the Frequency of Pre-School Children Using Gadgets and Not Using Gadgets in Nurul Insani Kindergarten

Gadget Usage	Frequency	Percentage (%)
Yes	25	62.5
Not	15	37.5

Based on table 3, it can be seen that there are 25 pre-school children who use *gadgets* in Nurul

Insani Kindergarten (62.5%) while 15 people (37.5%).

The Relationship between Gadget Use and Verbal Development of Pre-School Children at Nurul Insani Kindergarten in 2021

Based on the table above, the group of respondents who were exposed to the use of *gadgets* after a statistical test using the *Chi Square test*, From the results of the Chi-Square test, obtained a p-value of 0.004 so H_0 is rejected which states that there is a relationship between the use of gadgets and verbal development in children. pre school. So it can be concluded that there is a relationship between the use of *gadgets* on the verbal development of preschool children at Nurul Insani Manduro Ngoro Kindergarten in 2021.

Table 4.
The Relationship between the Use of Gadgets and the Verbal Development of Pre-School Children

Gadgets	Verbal Development of Pre-School Children						<i>p value</i>
	It is not in accordance with		In accordance		Total		
	f	%	f	%	f	%	
Using Gadgets	15	88.23	10	43.48	25	62.5	0.004
Not using Gadgets	2	11.77	13	56.5	15	37.5	

DISCUSSION

From the data in the field, it can be concluded that there is a relationship between the use of *gadgets* and the verbal development of preschool children. This is in accordance with research conducted by Hana (2017) which states that family stimulation affects the speech development of children aged 6 to 36 months (Hana Pebriana, 2017). The introduction or use of *gadgets* in children too early can have a positive or negative impact. This is influenced by several factors such as frequency, duration, and parental supervision.

The use of *gadgets* as a basic material for learning in children will have a positive impact such as increasing children's creativity and thinking power. This incident can arise if parents are good at controlling and directing children, and are firm in giving time limits to children in playing *gadgets*. Vice versa, if parental supervision is lacking and there is no firm effort in limiting the time for playing *gadgets* for children, it can cause a negative side. The results of the study were found by Yendfrisal in 2020, regarding language skills in preschool children in a literature review, and that one of the late developmental disorders is speech and language development if playing gadgets with a long duration and incomplete speech and language development as a result playing gadgets (Jafri & Lidya Defega, 2020). This is also related to research conducted by Yulsyofriend in 2019 about the impact of gadgets on early childhood language development that gadgets have a positive impact, namely making it easier for children to learn language skills through gadgets while the negative impact is that gadgets inhibit good language and hinder interaction with people. others (Yulsyofriend, Anggraini, & Yeni, 2019). According to the development of children's language along with their biological development. This is used as the basis why children at a certain age can speak, while children at a certain age cannot speak. However, in their development, in general, children have almost the same language acquisition components, both in terms of phonological development, syntax, semantics, and pragmatics. This is of course seen

from the point of view of normal child language development. According to Chusna's 2017 research, the use of gadgets has an impact on its users. Ease in technology makes users have different opinions in the context of the consequences after receiving the technology. There is a positive impact (increasing children's learning enthusiasm) but also a negative impact (impact on laziness, because children are more concerned with their gadgets than learning). Those are some of the impacts caused by the use of gadgets on children (Chusna & Al-Muslihun, 2017).

According to researchers, most of the preschool children who use *gadgets* are influenced by several factors, one of which is the lack of parental knowledge about the negative impact of using *gadgets* on preschoolers such as reduced social interaction with the environment, which affects children's social development. In addition, the high use of *gadgets* in preschool children is influenced by the busyness of parents. As explained by his research which says that there is a significant influence between the level of parental education on parenting (Ahmad, Suryawan, 2010; Manumpil et al., 2015).

From the results of the frequency distribution of respondents that the education of parents of preschool children in Nurul Insani Manduro Kindergarten, the majority have high school education, namely 43.3% and the majority work as housewives by 56.7%. In this study, it was found that working parents were 53.3%, the majority of their children had less social development of 53.3%. Working parents assume that giving *gadgets* to children will make children calm. The higher the level of parental knowledge about verbal stimulation, the better the language development of preschool children. A person's knowledge so much affects the emergence of understanding and attitudes which will eventually lead to a person's behavior. The purpose of providing stimulation to children is to help children to achieve optimal levels of development or as expected (Suherman, 2002). Excessive use of *gadgets* will have a negative impact on children's social and emotional development. The bad effects of using *gadgets* on children include children

becoming closed individuals, sleep disturbances, being alone, violent behavior, fading creativity and the threat of *cyberbullying*. Impaired language development is the ability to respond to sounds, follow commands and speak spontaneously. In language development, it begins with being able to mention up to four pictures, mentioning one to two colors, mentioning the use of objects, counting, interpreting two words, imitating various sounds, understanding prohibitions and so on (Zubaidah, 2015). This is also in accordance with research conducted by Widiawati in 2014 which suggests that if children have been given toys in the form of *gadgets* at this time, then it will affect the language acquisition process that is not in accordance with their level of development (Widiawati, 2014). This can happen because the interaction only comes from one direction, because the child is addicted to *gadgets*. However, language is an important part of life.

In its use, parents should direct their children to *educational games*. *Educational games* are a combination of the benefits of *game principles* with technology to produce *educational content* in which fun elements are incorporated into learning (Zemliansky, Pavel & Wilcox, 2010). applications that can support children to want to learn in a more fun way.

Rosen (2014) explains that through games, children can be motivated to learn with new concepts in an entertaining and fun context (Rosen et al., 2014). Bar (2001) also stated in his research that games have the power to encourage increased activity and motivate children to do an activity with fun and adapting a fun way of learning children through games (Bar-On et al., 2001). By utilizing existing technology, we can create a game that not only invites children to just play without gaining knowledge, but we can create a game that can indirectly provide knowledge for children. The improvement of children's verbal abilities can be improved by providing picture cards or other stimulation that attracts children's interest in reading. One of the media that can be interesting

attention and improve early childhood language vocabulary mastery, namely picture word cards. Picture word cards can be used for any subject, for example practicing basic language learning (vocabulary and grammar), thematic subjects, biology, and geography (Yasbiati, Pranata, & Fauziyah, 2017). In addition to using picture cards, pre-school children can also be taught other stimulation, one of which is *Brain Gym*. *Brain Gym routine* performance results in stimulation and integration of various parts of the brain, especially the

corpus callosum, which in the long run makes communication between the two hemispheres faster and improves a better shape. integrated for high-level reasoning (Dini, 2017; Khasanah, Adiesti, Safitri, & Diana, 2022; Khuluqo, 2020).

CONCLUSION

Based on the research that has been done, it can be concluded that there is a relationship between the influence of using gadgets on the verbal development of pre-school children.

SUGGESTION

Researchers suggest that parents are expected to accompany their children when using *gadgets* and supervise the use of gadgets in children so as to reduce the negative impact on the use of gadgets. The school is expected to provide direction and improve children's verbal development through games and songs that are easy for children to remember.

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