# THE RELATIONSHIP OF THE INTENSITY OF GADGET USE WITH THE DEVELOPMENT OF SPEECH AND LANGUAGE ASPECTS IN

**TODDLER AT PEMATANG RAYA HEALTH CENTER SIMALUNGUN DISTRICT IN 2023**

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# ABSTRACT

Children are an important asset for a nation that will become future successors (Winarti, 2020). Children born after 2010 called the alpha generation, they live side by side with technology and information is developing rapidly. Compared to previous generations, they claimed as generation most intelligent Because interact direct with the internet so that in everyday life it cannot be separated from *gadgets* (Purnama, 2018). Many factors can influence speech delay *,* hearing loss, the influence of gadgets, parenting patterns parents, pervasive disorders, lack of communication and interaction, disorders of organs supporting pronunciation, low/high intelligence factors and processing factors, second language factors, infections during pregnancy, family history. The aim of this research is to analyze connection between connection intensity use gadgets with development aspect talk And Language on toddler at Pematang Raya Community Health Center, Simalungun Regency in 2023. Research This use type study analytic observational. Design study use approach *cross sectional* . Population in study This is child Which aged 2 – 5 year In Pematang Raya Community Health Center , Simalungun Regency, in 2023 there will be 333 children under five.

***Keywords: Speech Delay, Gadged, Usage Relationship***

# INTRODUCTION

Children are an important asset for a nation that will become future successors (Winarti, 2020). Children born after 2010 referred to as the alpha generation, they live side by side with technology and information is developing rapidly. Compared to previous generations, they claimed as generation most intelligent Because interact direct with the internet so that in everyday life it cannot be separated from *gadgets* (Purnama, 2018). According to BPS Indonesian Telecommunication Statistics data for 2021 from the results of the 2021 Susenas Survey, 62.10 percent of Indonesia's population has accessed the internet in 2021. This high internet usage reflects a climate of information

openness and public acceptance of technological developments and changes towards an information society. The high number of internet users in Indonesia cannot be separated from the rapid development of cellular telephones. In 2021, 90.54 percent of households in Indonesia will own/control at least one cellular telephone number. This figure has increased compared to conditions in 2018 which reached 88.46 percent . On average, internet users in Indonesia access the internet for around 7 hours 42 minutes per day. According to the Central Statistics Agency, in 2020 there were 32.96 million children aged early childhood in Indonesia and 56.43% of them are toddlers.

A recent report states that nearly 80 percent of children under the age of five in the US access the internet at least once a week. The report, which comes from the non-profit organization Joan Gnaz Cooney Center and Sesame Workshop, uses data from seven recent studies. This data indicates that the number of toddlers consuming digital media is increasing.

According to data obtained from the ministry of information and communications based on a survey by Neurosensum, in 2021 children in low- income households spent less time on social media (2.4 hours a day) than their peers in high-income households, namely 3.3 hours a day. YouTube (78%), WhatsApp (61%), Instagram

(54%), Facebook (54%), and Twitter (12%) are the social media platforms most used by children.

The NeuroS ensum Indonesia Consumers Trend 2021: Social Media Impact on Kids survey also conducted research on parents' feelings about their children's relationship with social media. The results of this research show that violent and sexual content is the biggest concern for parents who have introduced social media to his children. Data from the Central Statistics Agency (2020) shows 29% of the total use gadgets is age early And 25 ,9 % delivered is toddler. Meanwhile, 0.93% of children use the internet and 10.71% toddler. In fact, according to Byeon & Saemi (2015) that children aged 1-2 years are watching TV for more than 3 hours, has three times the risk greater experience lateness Language. Based on study from Fajriah et al (2018)

The rate of developmental delays in children is still quite high. Data from UNICEF year 2011 state there is 27 .5

% child in world experience lateness development, with say other around 3 million child in world experiencing developmental delays (Awalia, 2020).

Meanwhile in the year 2016, lateness child experience increase Which fast reach 52 .9 million children in the world with 95% of them living in countries growing (Khan & Leventhal, 2021).

Many factors can influence speech delay *,* hearing loss, the influence of gadgets, parenting patterns parents, pervasive disorders, lack of communication and interaction, disorders of organs supporting pronunciation, low/high intelligence factors and processing factors, second language factors, infections during pregnancy, family history. Apart from that, if a child's pronunciation is below normal for children his age, such as making a lot of mistakes in language, adding or deleting consonants in speaking, it can be said to be Other factors that influence speech delay *include* internal factors in the form of genetics, physical disabilities, neurological malfunctions, prematurity, and gender. Meanwhile, external factors that influence children experiencing speech delays *are* the order/number of children, mother's education, economic status, family function, and bilingualism (Terra Aurelia, Nan Rahminawati, 2021). There are children who suffer from *speech delay* because they watch too much so it doesn't stimulate the child to talk and only makes the child listen or be an audience instead of actively speaking. However, handling *speech delay* can be done through speech therapy which involves the child's balance and gross motor skills (Andi Filsah Muslimat, Lukman, 2020).

The Indonesian Child Protection Commission released the results of a survey regarding the fulfillment of children's rights and protection during the corona virus pandemic. A survey was conducted to see how many children were using it *gadgets* for

studying at home while schools are closed. As a result, as many as 79 percent of parents gave permission for their children to use gadgets for activities other than online learning.

Based on data from the Simalungun District Health Service, the highest number of cases of developmental delays were in the Pematang Raya Community Health Center with a rate of developmental delays amounting to 8.23% (Simalungun District Health Office, 2020). The number of toddlers is 333 people. Apart from that, researchers also found several toddlers in the surrounding area who play with gadgets excessively without

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Instrument study Which used on study This is questionnaire study and Questionnaire Pre Screening Development (KPSP).

Process processing data done through stages as following: *Editing, Coding, Transferring, Tabulating*

Data analysis was carried out to test the research hypothesis. For know is There is connection between intensity use *gadgets* with development on aspect talk And Language toddler at the Pematang Raya Community Health Center, Simalungun Regency in 2023.

**RESULTS AND DISCUSSION**

Pematang Raya Public Health Center is located at Simalungun Regency , North Sumatra, Indonesia. This puskesmas is one of the puskesmas in Simalungun Regency

supervision person old experience lateness development compared to children his age. This makes researchers feel interested in conducted research related to "The Relationship between Gadget Use Intensity and"Development of Speech and Language Aspects in Toddlers at the Pematang Raya Health Center, Simalungun Regency in 2023"

The aim of this research is to analyze connection between connection intensity use gadgets with development aspect talk And Language on toddler at the Pematang Raya Community Health Center, Simalungun Regency in 2023.

which provides health checks, referrals, health certificates , etc. This puskesmas serves various puskesmas programs such as health checks (check ups), making health certificates, outpatient care, removing stitches, changing dressings, suturing wounds, extracting teeth, checking blood pressure, pregnancy tests, checking children, testing blood type, uric acid, cholesterol and others. Puskesmas also provides referrals for BPJS patients to hospitals to receive further treatment.

**Respondent Characteristics**

# Table 5.1 Distribution Frequency Respondent Based on Age, gender of child, mother's education level and mother's occupation at Pematang Raya Community Health Center, Simalungun Regency in 2023

Based on Table 4 .1 show that majority respondents is at on range age 36 – <48 months were 36 respondents (4 6 .7 5 %). From the table it can be seen that more than half of the respondents were female, amounting to 44 respondents (57.14 % ). The difference in the frequency of male and female respondents is not much different, namely 33 respondents. It can be seen that more than half of the respondents' parents had secondary education, 66 respondents (85.71%). Basic level education is education (primary/equivalent and junior high/equivalent), secondary level education is high school/equivalent education and tertiary level education is college graduates. Based on the table, it shows that the majority of respondents' parents do not work (housewives) amounting to 56 respondents ( 72 , 73 %). Parents who work, among others, as private employees, self-employed, etc.

# Univariate Analysis

T**able 1.2 Frequency Distribution of *Gadget Use* among** Children **at Pematang Raya Community Health Center, Simalungun Regency in 2023**

Based on Table 4.2, it shows that more than half Respondents have a high intensity of *gadget* use amounting to 41 respondents (

53.25 %). The intensity of gadget use consists of duration per day and frequency per week. The mean duration of gadget use is 88.86 minutes per day and is included in the high duration category. Meanwhile, the mean frequency of gadget use was 5.39 , in the range of 5 - 6 days per week and included in the medium frequency category. The lowest intensity of gadget use in this study

was 5 minutes/day and gadget use frequency

1 day/week. Meanwhile, the highest intensity of gadget use in this study was the

|  |  |  |
| --- | --- | --- |
| **Age (Month)** | Frequency | Percentage (%) |
| 24 – <30 | 2 | 2.60 |
| 30 – <36 | 5 | 6.49 |
| 36 – <48 | **36** | 46.75 |
| 48 – <54 | 12 | 15.58 |
| 54 – <60 | 17 | 22.08 |
| 60 | 5 | 6.49 |
| **Amount** | **77** | **100.00** |
| **Gender** |  |  |
| Man | 33 | 42.86 |
| Woman | **44** | 57.14 |
| **Amount** | **77** | **100.00** |
| **Level of education** |  |  |
| Base | 7 | 9.09 |
| Intermediate | **66** | 85.71 |
| Tall | 4 | 5.19 |
| **Amount** | **77** | **100.00** |
| **Work** | | |
| Work | 21 | 27,27 |
| Doesn't work | **56** | 72.73 |
| **Amount** | **77** | **100.00** |

frequency of gadget use every day and the duration was 405 minutes or the equivalent of 6 hours 45 minutes every day. Data results on the intensity of gadget use will be attached

The research results show that the average child uses a gadget for the first time at the age of 30.81 months . The majority of respondents use tablet and cellphone type gadgets. Regarding the applications used, most respondents used them to play games and watch videos. When using gadgets, the majority of respondents use gadgets with parental supervision or child supervision. This could be because most parents or caregivers of respondents know the effect of gadget use on toddlers. When using gadgets, the majority of respondents responded angry when they were disturbed or their gadgets were taken away No turned around when called.

# Incident Lateness Aspect Development Talk And Language

Table 1.3 **Distribution Frequency**

# Lateness Development Aspect Talk And Language on Child at the Pematang Raya Community Health Center , Simalungun Regency in 2023

Based on Table 4.3, it shows that more than half respondents own development talk And Language Which normal as big as 53 respondents (68 .83 %). Whereas respondents Which experience lateness development aspect talk And Language as big as 46 respondents ( 31 , 17 %).

# Intensity Use *Gadgets* To Age According to KPSP

Table 1.4 **Frequency Distribution of Intensity of *Gadget Use* Against Age according to KPSP on Child at the Pematang Raya Community Health Center , Simalungun Regency in 2023**

Based on Table 4.4 show that part big respondents with low intensity of *gadget use were* on **range age 36 – <48** month as big as 36 respondents ( 46 , 75 %). Most respondents use gadgets intensively Which **is** around the age of 36 – < 48 month by 18 respondents ( 23 , 38 %). Semain increase age child, the more increase also intensity use *gadgets* .

# Analysis Bivariate

**of *Gadget* Use Development of Speech and Language Aspects in Children *Chi Square* Test Results for Intensity of *Gadget* Use Development of Speech and Language Aspects in Children at the Pematang Raya Community Health Center, Simalungun Regency in 2023**

Based on table 4.3 From the results of data analysis obtained results mark p = 0,000. Number the show that mark p< 0.05, It means there is connection Which significant between intensity use of *gadgets* with delays in the development of aspects of speech and Language on toddler in Pematang Raya Community Health Center Mark coefficient a correlation of

0.346 indicates there is a unidirectional relationship with strength weak (values range from 0.20 – 0.399). The direction of the relationship is positive (+) can be interpreted that the more tall intensity use *gadgets* , the more There is also a big chance that toddlers will experience developmental delays talk and language.

Examinations using KPSP are carried out every 3 months for children aged <24 months and every 6 months for children aged 24 – 72 months. In KPSP aged 42 months there are no aspects of speech and language, so there is a range of 12 months at the age of 36 months to 48 months. Ages 36 – <48 months are toddlers and are also called preschoolers. During this period, children learn to be more independent, pay attention to themselves, develop school readiness and play more often with peers.

The characteristics of research respondents provide an overview of the frequency distribution based on the respondent's gender. From the research results, more than half of the respondents were female. Soetjiningsing explained that language development was normal in Toddlers involve the left hemisphere in the brain. In women, the maturation and development of left hemisphere verbal function is better. Meanwhile, in men, the development of the right hemisphere is better, namely tasks that are abstract and require skill. Boys tend to have high curiosity and carry out various experiments. In addition, boys tend to be more distracted and lack self-control (Naturally there are differences in

development according to gender based on the maturation of brain function.

Apart from the child's age and gender, the characteristics of the respondent were also seen from the respondent's parents; including parents' highest level of education and parents' occupation. The research results show that more than half of the respondents' parents had secondary education. Parents with low education have lower knowledge about the problem of smartphone addiction, so parents easily give smartphones to their children. The results of research conducted by Zuhri show that the higher the level of parental education, the lower the risk of child development disorders. .

Another characteristic of respondents from parents is the parents' occupation. The research results showed that the majority of respondents' parents did not work (housewives ). In general, working can take up time to support family life, while housewives will have more free time so they can know all their children's activities. Parents who don't work will have more time to pay attention to their children's needs, interact more often and invite their children to talk. .

The results of research conducted on 77 respondents showed that the majority experiencing delays in the development of aspects of speech and language. The existing prevalence figures show quite high results compared to research conducted by Mardiana (2016) of 8.2 % in toddler-aged children who experienced suspected speech and language development.

According to researchers' assumptions, the fairly high prevalence rate of delayed speech and language development in toddlers requires attention, because speech and language development can determine the child's future development and can influence other aspects of development.

# CONCLUSION

Based on the results of research and discussion on "Intensity Relationships Use of *Gadgets* with Developmental Delays in Speech and Aspects Language on Toddler in Pematang Raya Community Health Center, Simalungun Regency in 2023", can taken conclusion that :

1. Intensity use *gadgets* on toddler own results Lowest with duration 5 minutes/day And frequency use *gadgets* 1 Sunday; whereas intensity highest with duration 405 minute per day and frequency every day. Average duration of *gadget use* 88 .86 minutes per day and avg frequency use of *gadgets* 5 – 6 day per Sunday.
2. Partial small respondents experience lateness development on aspect talk and language.
3. There are connection Which significant between intensity use *gadgets* with delays in the development of aspects of speech and language on toddlers at the Pematang Raya Community Health Center, Simalungun Regency in 2023.

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