Proceeding Paper

# THE INFLUENCE OF ROLE PLAYING ON KNOWLEDGE OF THE DANGERS OF USING GADGETS (SMARTPHONE) IN CHILDREN IN SDN 5 BENGKULU CITY

Aldi Prayoga, Darwis<sup>\*</sup>, Ismiati

Department of Health Promotion, Poltekkes Kemenkes Bengkulu, Bengkulu, Indonesia

\*darwis@poltekkesbengkulu.ac.id

#### Abstract

The stage of introducing knowledge about the dangers of gadgets to school children is still too early. The use of gadgets can significantly affect students' social development. This is due to long duration of gadget use every day. This study aims to explore the impact of role-playing on knowledge of the dangers of gadget use (Smarphone) in children at SDN 5 Bengkulu City. This research is a quantitative research with pre-experiment method. This research design used one group pre-test and posttest. This study involved 46 students from class V at SD Negeri 5 Bengkulu City, with a population of 729 student. The instrument in this study used a questionnaire. Data analysis with

wilcoxon signed rank test. The result showed that the average score of respondents' knowledge before the intervention (67.59) was classified as sufficient. After being given education using a role-playing script, the level of knowledge increased to good with a value of (83.39), and the P-value was (0.000). on signed rank test. This study is expected to an alternative health media option for health promoters in providing information about the risks of using gadgets (Smarphone) to improve student knowledge.

Keywords: Role Playing, Knowledge, Dangers of Using Gadgets, Smarphone, Children

## INTRODUCTION

Excessive gadget use in two-year-olds is defined as use of more than 2 hours per day. Excessive gadget use at an early age can have an adverse impact on a child's development, including potential vision problems and impaired social and cognitive development. Data shown by BPS (Central Bureau of Statistics), by the end of 2020 as many as 20.1% of school-age children have accessed the internet. Screen time has been identified as a risk factor in child development (Sianturi 2021). The use of gadgets among them comes from the category of children. The use of gadgets in Indonesia is used for a variety of purposes from finding information to playing games to finding entertainment. Indonesian people use

Presented at The 4<sup>th</sup> Bengkulu International Conference on Health (B-ICON), Bengkulu-Indonesia, September 24-26<sup>th</sup>, 2024

Published: December 31<sup>st</sup>, 2024 **Copyright** © 2024 by authors. ISSN : 2986-027X



gadgets to access social media such as whatsapp, instagram, tiktok, facebook and so on palopo (Palopo 2019).

Data and media Network (2020). In 2022 the number of smartphone usage is predicted. Meanwhile, from KOMINFO RI data that smartphone users in Indonesia are more than 100 people. The use of smartphones at this time does not know the age ranging from adults to early childhood has used early childhood in Indonesia using cell phones. The danger caused, the impact of gadget use on the character of social care which is very seen from the aspects of helping others, acting politely and being tolerant of differences (Agustina 2022).

The duration of gadget use varies from 30 minutes to more than 3 hours every day. Generally, children will feel upset and angry when their gadgets are taken away by their parents. Since getting to know gadgets, children are increasingly difficult to remind and indifferent when spoken to, (Kurniawati 2020) Loss of children's religious aspects is also characterized by students often ignoring prayer obligations and lack of enthusiasm when asked to go to the Koran, children are more interested in playing gadgets all day (Saputri 2022).

Children often do not pay attention to the teacher when explaining lessons because they are more accustomed to using gadgets just to play, which in turn instills a lazy attitude that is difficult to develop, According to (Nugroho et al. 2022). the decline in children's social caring character towards the surrounding environment can affect their social development in the learning process, especially children with the age of 6-12 years are socially caring, Children lose their sense of responsibility in terms of learning and helping parents because they often prefer to play gadgets. Lack of supervision from parents also contributes to children's lack of focus when the teacher is explaining the material in class, because children are more interested in playing and talking with friends about online games (Setyawan 2022).

Role-playing is a learning technique that allows children to develop their imagination by assuming the role of various characters or situations, someone for them to live up to, Gadgets are not only used by professionals, workers and the elderly but in this day and age children are using gadgets even more proficient than their parents (Tunagrahita 2022). Parents these days think that gadgets are able to become safe and easy to supervise playmates, so that the role of parents has now been replaced by gadgets which should be playmates, individual children are increasingly likely to prioritize interactions with gadgets in their comfort zone, thus showing less attention to friends or other people around them, (Gondangmanis 2021). Since January 2020, WHO has declared a global emergency due to the spread of COVID-19, which is clearly a pandemic affecting the entire world. In Indonesia, the government has declared a state of emergency starting February 29, 2020. (Agustina 2022). Based on research by

Layyinatus S. et al. (2019), the results of filling out a questionnaire show that 26% of children fall into the category of high gadget users, namely those who use gadgets for more than 2 hours per day. As many as 42% of children are in the moderate category, with a duration of gadget use of around 1 hour or 40-60 minutes a day. 60 minutes a day. Meanwhile, another 32% of children fell into the low category, using gadgets for 5-30 minutes a day and only during leisure time or rarely at home. The study also found that there were 10 children who used gadgets more than 2 hours a day, with activities such as browsing the internet, watching YouTube, and playing games

#### **METHODS**

This type of research used is a type of quantitative research with Pre-Experimental research methods, with the research design used One Group Pretest-Posttest design, in this study the measurement of children's knowledge is carried out before and after the role-playing action has been implemented. The sample of this study was 46 students of grade V SDN 5 Bengkulu City obtained by random sampling technique, the source of data was taken from references, distributing questionnaires, and distributing questionnaires. data were taken from references, distributing questionnaires, and documentation on students of SDN 5 Bengkulu City, the instrument used in this study was a questionnaire

#### **RESULTS AND DISCUSSION**

#### Percentage distribution of gadget usage before and after the intervention.

Based on Table 1.3, the average percentage shows that the question items regarding knowledge about the dangers of using gadgets (smartphone) in students obtained the smallest correct answer after being given a role-playing script, namely question number 1 about foods that are good for eye health, which is 39.00% with a category of less and the largest answer is in question number 15, which is 95.00%. with a very good category.

NO	Question Item	Before % Correct	After % Correct
1.	What are some foods that are good for eye health?	39,00	80,00
2.	How much time is effective when using Gadgets?	52,00	85,00
3.	Can gadget radiation cause disease?	60,00	75,00

Table 1: Percentage	Distribution	of Knowledge	e Refore	and After the	Intervention
I ubic I. I citchiuge	Distribution	of monituge	Depore	unu mici inc	mervennon

4.	How much time to rest after using gadgets?	66,00	80,00
5.	How to reduce the use of gadgets according to The American Academy Ofpediatrics 2013 book is ?	70,00	95,00
6.	How many hours between sleep and screen time?	72,00	92,00
7.	Using gadgets maximum 1 hour/day for age ?	79,00	85,00
8.	What do we need to do to avoid gadget addiction?	80,00	95,00
9.	According to The American Academy Of Pediatrics 2013 book tips on how to reduce gadget use except ?	85,00	92,00
10.	What are the consequences of prolonged exposure to gadget light?	72,00	85,00
11.	What is the distance between your eyes and the screen when using gadgets?	75.00	80,00
12.	Where should we get our eyes checked for eye health?	66,00	80,00
13.	What are the consequences of playing gadgets for more than 2 hours?	72,00	85,00
14.	How to do eye exercises to prevent eye fatigue?	60,00	80,00
15.	What is the correct position to play gadgets so as not to damage the eyes?	85,00	95,00

Variable	Ν	Mean		SD	CI95%
Knowledge					
Before ( <i>Pre test</i> )	46		67.59	10,655	64.42.70
After (Post test)	46		83.39	6,188	81.55.85

Average student knowledge before and after being given role-playing material at SDN 5 Bengkulu City

Table 2: Mean Knowledge of Respondents Before and After Intervention

Based on Table 1. The results of the analysis show the average level of knowledge of students after the intervention. role play about the dangers of gadget use from 67.59 moderately to 83.39 well with SD from 10.655 to 6.188 believed CI95%.

# Differences in Mean Knowledge Before and After Role Play on the Dangers of Gadget Use in Grade V Children at SDN 5 Bengkulu City.

*Table 3 Mean difference in knowledge before and after role-playing the dangers of gadget use (Smarphone) in children at SDN 5 Bengkulu City* 

Variabel	MEAN	Δ P Value		
Knowledge				
Before	67.59			
After	83.39	0,000		

Based on Table 1.5 above, it shows an increase in knowledge scores, with an average value before intervention of 67.59, which is considered sufficient, and an average value after intervention is 83.39 which is said to be good. The results of the non-parametric Wilcoxon signed-rank test show a value of p = 0.000, which is smaller than 0.05. This means that it can be concluded that there is a difference in the average knowledge of students. SDN 5 Kota Bengkulu before and after being given role-playing education about the dangers of gadgets (Smartphones).

#### DISCUSSION

#### Percentage distribution of gadget usage before and after the intervention.

The results of this study show that almost most children are very enthusiastic about role-playing education, factors such as understanding and the level of enthusiasm of respondents when receiving education from researchers affect this. The highest knowledge is found in the indicator of how to avoid the dangers of gadgets, which is 95%, Knowledge of the dangers of gadget use is very important to be given to students because this is one method to reduce children's use of gadgets in order to avoid gadget addiction. This researcher also showed an increase in knowledge of the dangers of gadget use after intervention using educational role-playing scripts, where before the intervention was obtained a low percentage of 39% and after the intervention the high percentage increased by 95%. This is due to the fact that according to there are six levels of knowledge: know, understand, application, analysis, synthesis, and evaluation. The knowledge score shows that students have reached the basic knowledge level (know) but have not yet reached the application level, as seen from the students' low attitude.

## Average student knowledge before and after being given role-playing material at SDN 5 Bengkulu City

Fifth grade students at SDN 5 Bengkulu City have insufficient knowledge and after being given the intervention, the results obtained were 67.59 categorized as sufficient and became 83.39 categorized as good.

After being given the Role Play intervention, the difference in the average knowledge before and after there is an increase in knowledge about the dangers of using gadgets, students Lack of attention or accuracy in answering questions has a big impact on the quality of the answers given. Based on research (Asdar 2022). in the first cycle through the application of the role-playing method in class V SDN 16 Pangkasalo, Maros Baru Subdistrict, Maros Regency shows that the ability to appreciate drama texts is average or in the sufficient category, but there are still students who get scores on the average score. Even it has not met the KKM standard, because those who have completed their learning so that they have not met the predetermined learning completeness indicators. This means that the activities of the ability to appreciate drama text through the application of the role-playing method must be continued in the second cycle.

Research Results (Rini 2021). increase knowledge. Therefore, parents play an important role in this matter because it is appropriate for parents to teach and direct their children to things that can build and develop children's knowledge and character by paying attention to factors that can adversely affect

children's social behavior. Teachers in elementary schools can guide and lead and direct to an understanding of concepts for elementary school children. Gadget dependence in early childhood is a condition where children use gadgets continuously for more than 2 (two) hours. Children will protest even if they are not given gadgets and even children cannot miss a day without gadgets.

The recommended use of gadgets is no more than 2 hours per day, with this duration children can make optimal use of gadgets as well as avoid various side effects that can affect the health of the body, the recommended duration for children aged 2-5 years is 1 hour per day and parents need to choose a quality application program that is safe for children (Putra 2021).

# Differences in Mean Knowledge Before and After Role Play on the Dangers of Gadget Use in Grade V Children at SDN 5 Bengkulu City.

The statistical test results obtained the mean rank of respondents' knowledge before being given a roleplaying script is 67.59 said to be sufficient while after being given role-playing script education the mean rank results are 83.39 said to be good. This shows that the average increase in the respondent's knowledge score before and after given a role-playing script Experienced a more significant increase in knowledge scores. The results of knowledge data analysis using the Shapiro-Wilk test showed a P-value of 0.000. Because the P-Value <0.05, the null hypothesis (Ho) is accepted, which means that the roleplaying script has an effect in increasing knowledge of the dangers of using gadgets (smarphone) at SDN 5 Bengkulu City.

According to (Purwaningtyas 2023). Information delivery is influenced by the methods and dialog used. Role-playing methods and dialogs can have a significant impact on increasing knowledge. This can be seen from the research analysis above, which shows an increase in knowledge before and after the application of the role-playing method regarding the impact of the dangers of using gadgets (smarphone).

The results obtained are said to be sufficient and the average after being given about the knowledge of the dangers of using gadgets (Smarphone) is said to be good, which means that there is an increase in knowledge in respondents. Based on Table 1.5, the percentage shows that question item 15 regarding knowledge about the dangers of using gadgets (smartphones) obtained the correct answer with the smallest percentage after the role-playing script intervention, namely question number 1 (39.00) This is due to the fact that there are still students who do not understand the question. Possibly, after being given an intervention on the dangers of using gadgets (smartphones) through role-playing dialog, students pay less attention or are less careful in reading the questions, which has an impact on the quality of their answers. Then there are answers of the same value on question number 10 (85.00) totaling 18

students after being given a role-playing dialog intervention, this is because the students' understanding is almost the same regarding the question item and the highest item is on question number 15 (95.00) totaling 3 students. This is due to the influence of the role-playing script on student knowledge at SDN 5 Bengkulu City.

Based on the results of research (Rini et al. 2021). The use of early childhood gadgets is used without any physical activity in it, one example of a smartphone in its use is just pressing buttons while sitting for hours, if the use of gadgets is carried out for a long duration, the child will experience problems with eye health, then the body structure bends and the strength in the body will weaken because there is no physical activity in it (Utami 2022).

## CONCLUSIONS AND SUGGESTIONS

Based on the results of research on the Effect of Role Playing on Knowledge of the Dangers of Using Gadgets (Smarphone) for children at SDN 5 Bengkulu City, the researcher draws the following conclusions : Almost all students of SDN 5 Bengkulu City are 10 years old, the percentage of gadget use is categorized as less, most of them are in the very good category. There is an increase in children's knowledge of SDN 5 Bengkulu City before and after intervention through role-playing script education about the dangers of gadget use. There is an influence and application before and after being given education through role-playing scripts for fifth grade children at SDN 5 Bengkulu City.

The suggestions from this study are: 1). For agencies and health service providers, it is hoped that they can provide role-playing dialogues at the health center using role-playing script education about the dangers of using gadgets (smarphone) to expand information about the dangers of using gadgets (smarphone) 2). For future researchers, it is hoped that the results of this study can be a reference and provide input, especially in the field of health promotion which continues to grow. This research is also expected to increase understanding of the dangers of gadgets (smartphones) and can be applied or used in student field work practices.3). For future researchers, it is hoped that the results of this study can be a suseful source of knowledge in improving the author's skills in the application of research methodology, as well as deepening the author's understanding of the dangers of using gadgets (smartphones).

## REFERENCES

- Agustina, Naila Intan Muna, Erik Aditia Ismaya, and Ika Ari Pratiwi. 2022. "Dampak Penggunaan Gadget Terhadap Karakter Peduli Sosial Anak." *Jurnal Basicedu* 6(2):2547–55. doi: 10.31004/basicedu.v6i2.2465.
- Asdar, Andi. 2022. "peningkatan kemampuan mengapresiasi teks drama melalui metode bermain peran pada siswa kelas v." 1(01):71–79.
- Gondangmanis, S. D. 2021. "SISWA Wahyu Rikha Rofikhatul Ula 1 Pendahuluan Berbagai Kemajuan Teknologi Dapat Kita Peroleh Dengan Mudah Salah Satunya Smartphone . Penggunaan

Smartphone Yang Canggih Menimbulkan Dampak Positif Antara Lain Untuk Memudahkan Seorang Anak Dalam Mengasah Kr." 3:290–98.

- Kurniawati, Dian. 2020. "Pengaruh Penggunaan Gadget Terhadap Prestasi Siswa." 2(1):79-84.
- Nugroho, Rivo, I. Ketut Atmaja, Johny Artha, Widya Nusantara, Arini Dwi Cahyani, Muhammad Yayang, and Putra Patrama. 2022. "Peran Orang Tua Dalam Mengurangi Dampak Negatif Penggunaan Gadget." 6(5):5425–36. doi: 10.31004/obsesi.v6i5.2980.
- Palopo, Kota. 2019. "Berbicara Siswa Kelas V SDN 50 Bulu ' Datu Kota Palopo Dengan Penggunaan Mencari Solusi Untuk Mengatasi Masalah Yang Dihadapi Siswa Agar Lebih Mabruri Dan Ferry Aristya, 2017). Berbicara Merupakan Alat Untuk." 2(2):221–30.
- Purwaningtyas, Fifin Dwi, Yesi Septiana, Hesti Aprilia, and Galuh Candra. 2023. "Dampak Penggunaan Gadget Terhadap Perkembangan Psikologi Pada Anak Sekolah Dasar." *Jurnal Psikologi Wijaya Putra (Psikowipa)* 4(1):1–9. doi: 10.38156/psikowipa.v4i1.84.
- Putra, Ary Antony, and Ida Windi Wahyuni. 2021. "Pengaruh Penggunaan Handphone Pada Siswa Sekolah Dasar." 18(1):79–89.
- Putra, Erwin Dwika, and Marissa Utami. 2022. "Sosialisasi Bahaya Penggunaan Gadget Pada Anak Sekolah Dasar." *JPMTT: Jurnal Pengabdian Masyarakat Teknologi Terbarukan* 2(2):64–68.
- Rini, Nita Monita, Ika Ari Pratiwi, and Muhammad Noor Ahsin. 2021. "Dampak Penggunaan Gadget Terhadap Perilaku Sosial Anak Usia Sekolah Dasar." 7(3):1236–41. doi: 10.31949/educatio.v7i3.1379.
- Saputri, Rieke Dyah Ramadhani, and Agung Setyawan. 2022. "Dampak Penggunaan Gadget Terhadap Perkembangan Karakter Pada Anak Sekolah Dasar." *AMAL INSANI (Indonesian Multidiscipline of Social Journal)* 3(1):24–31. doi: 10.56721/amalinsani.v3i1.109.
- Tunagrahita, Anak, and Sistriadini Alamsyah Sidik. 2022. "Metode Role Playing Untuk Meningkatkan Kemampuan Interaksi." 8(4):1582–88. doi: 10.31949/educatio.v8i4.3996.