The Relationship Between Gadget Usage Duration and Emotional State in Preschool Children

Dini Nur Alpiah[1]* and Ulandari Ulandari [1]

[1] Physiotherapy Study Program, Faculty of Health Sciences and Technology, Binawan University, Jakarta, Indonesia

dinialviah@binawan.ac.id

Abstract. Emotional state refers to an individual's ability to recognize, comprehend, and regulate both their own emotions and those of others. The emotional development of children is influenced by various factors, one of which is exposure to digital devices. In recent years, the use of gadgets among preschool-aged children has increased significantly. This study aims to examine the relationship between the duration of gadget use and the emotional state of children attending Early Childhood Education *(Pendidikan Anak Usia Dini*) Bougenville Cawang. A cross-sectional research design was employed, utilizing a sample of 27 respondents selected through a total sampling technique. The duration of gadget use was measured using a questionnaire based on the American Academy of Pediatrics' guidelines for screen time, while emotional state was assessed using the Emotional and Behavioral Problems Questionnaire (EBPQ). The results indicated that children who engaged in gadget use for 2–5 hours per day exhibited a 100% normal emotional state, whereas those who used gadgets for more than 5 hours per day demonstrated a 93.3% prevalence of emotional disturbances. A statistical analysis revealed a significant relationship between the duration of gadget use and emotional state, with a p-value of 0.000, which is below the significance threshold of 0.05 ($p < 0.05$). Consequently, the null hypothesis (Ho) was rejected, confirming that the duration of gadget use has a significant impact on children's emotional state. These findings underscore the importance of parental supervision and the regulation of screen time to safeguard children's emotional well-being. Limiting gadget use is essential to fostering optimal emotional development in early childhood.

Keywords: Gadget, Preschool Children, Emotional State, Gadget Usage Duration.

A. Suraya et al. (eds.), *Proceedings of the 2nd World Conference on Health and Social Sciences (WCHSS 2024)*,
Advances in Health Sciences Research 86,
https://doi.org/10.2991/978-94-6463-774-8_4

1 Introduction

In today's digital world, technology has transformed everyday life for people of all ages, including children. Devices like smartphones, tablets, and computers are everywhere, shaping how kids play, learn, and communicate [1]. This early and extensive exposure raises concerns about the long-term impact on children's development, especially regarding their emotional health [2]. While these gadgets provide educational and entertainment value, their excessive use, particularly among young children, has ignited discussions about suitable screen time and its effects [3].

Statistics from Indonesia highlight this trend, with the Central Bureau of Statistics reporting that 52.7% of children aged 5-6 and 25.5% of those aged 0-4 regularly use gadgets [4]. These children interact with devices not just for educational purposes but also for entertainment and socializing [5]. A survey by the Komisi Perlindungan Anak Indonesia found that 36.5% of children use gadgets for 1-2 hours daily, 34.8% for 2-5 hours, and 25.4% for more than 5 hours a day, excluding educational use. Such usage patterns prompt critical questions about the potential emotional and cognitive effects of extended gadget use on young children [4].

The American Academy of Pediatrics [6], the World Health Organization [7], and the Indonesian Ministry of Health [8] all advise limiting screen time for preschoolers to one hour per day. However, evidence indicates that many children surpass this guideline, which could adversely affect their emotional development during a crucial growth phase [9]. Preschoolers, aged 3-6 years, are experiencing rapid emotional and social growth, developing vital skills for understanding and managing their feelings, which are essential for their future social interactions [10].

Emotions, as described by Campos in Santrock, refer to the feelings or affective responses that arise from significant life events [11]. During early childhood, expressions of emotions like happiness, fear, and anger play a crucial role in helping children understand and interact with their surroundings. However, if children experience emotional imbalances at this stage, it can lead to issues such as increased irritability, aggression, anxiety, and difficulties with concentration [12]. There is a growing concern that excessive use of gadgets is linked to these emotional disturbances, which may contribute to behavioral issues and cognitive deficits [13].

Additionally, overusing gadgets can impede physical development. Beatty and Janelle pointed out a reciprocal relationship between motor skills and emotional health [13]. Emotional disturbances can adversely affect motor coordination and levels of physical activity, potentially resulting in developmental delays. Further illustrated that children who struggle with emotional regulation often engage in less physical activity, which subsequently impacts their cognitive and motor skill development [14]. The emotional challenges, such as anxiety or fear, can limit physical movement, hindering the acquisition of motor skills [15].

Given this context, there are valid concerns regarding the emotional well-being of children, which in turn affects their movement and overall functioning. These characteristics have also been observed in children attending *Pendidikan Anak Usia Dini* (PAUD) Bougenville Cawang. According to pre-observation results gathered by the researcher on September 26, 2023, staff at PAUD Bougenville Cawang reported that many students in the Physiotherapy Program at Binawan University are easily distracted, prone to anger, and show a lack of interest in learning, often due to their desire to play with gadgets at home. This observation has motivated the researcher to explore this issue further at PAUD Bougenville Cawang.

This situation raises significant concerns about the potential negative effects on children's emotional health. This study aims to investigate the relationship between gadget usage duration and emotional state in preschool children at PAUD Bougenville Cawang

2 Methods

This study employs a quantitative research design with a cross-sectional approach, in which the independent and dependent variables are collected simultaneously, and their effects are analyzed based on the conditions present at the time of the study. The process of data collection and variable measurement is an integral component of the research methodology. This study examines the impact of gadget use intensity on the emotional well-being of preschool-aged children at PAUD Bougenville Cawang in 2024. The study population consists of the parents of students enrolled at PAUD Bougenville Cawang, located in Kramat Jati District, East Jakarta, with a total of 33 students. A saturated sampling technique was employed, wherein the entire population was included as study participants. This method is particularly appropriate for research involving relatively small populations, typically those with fewer than 30 participants [16].

Inclusion criteria:

a. Parents (Mother/Father) who have preschool-aged children between the ages of 3-6 years.
b. Parents with preschool-aged children who are enrolled as students for the 2023 academic year at Paud Bougenville Cawang.
c. The child uses gadgets.
d. Signed the informed cosents

Exclusion Criteria:

a. Both parents/guardians who were not present during the study.
b. Bougainville Preschool students for the year 2023 who were not registered from the beginning of the semester.
c. Parents who cannot speak Indonesian.

This study utilized two research instruments:

1) Questionnaire on Gadget Use Duration This questionnaire comprised a single item measuring the duration of gadget use, with response options categorized divided into less than 1 hour, 2–5 hours, and more than 5 hours

2) Questionnaire on Mental and Emotional Problems
The questionnaire consisted of 12 items designed to assess emotional and behavioral issues in children, with responses provided by parents or caregivers (Table 1).

Table 1. Modified Questionnaire on Mental and Emotional Problems

No	Item Questionnaire	Yes	No
1	Does your child frequently display anger without an apparent cause? (e.g., excessive crying, heightened sensitivity, or overreacting to familiar situations)		
	Does your child tend to avoid interactions with friends or family members? (e.g., preferring solitude, persistent sadness, or a loss of interest in normal activities)		
2	Does your child exhibit destructive or oppositional behavior toward their environment? (e.g., violating rules, stealing, engaging in self-harm, harming animals or other children, or disregarding guidance from caregivers)		
3	Does your child display excessive fear or anxiety that is disproportionate compared to peers of the same age and lacks a clear explanation?		
4	Does your child struggle with concentration or become easily distracted, leading to impairments in daily functioning or academic performance?		
5	Does your child exhibit confusion, communication difficulties, or indecisiveness?		
6	Does your child experience changes in sleep patterns? (e.g., chronic difficulty sleeping, staying awake throughout the day, frequent nighttime awakenings due to nightmares, or sleep talking)		
7	Does your child demonstrate alterations in eating habits? (e.g., significant loss of appetite, excessive eating, or refusal to eat entirely)		

8	Does your child frequently complain of physical discomfort, such as headaches or stomachaches, without an identifiable medical cause?	
9	Does your child express feelings of hopelessness or suicidal ideation?	
10	Does your child exhibit regression in previously acquired behaviors or abilities? (e.g., bedwetting, thumb-sucking, or excessive dependence on parents or caregivers)	
11	Does your child engage in repetitive behaviors without an apparent purpose?	

The number of "Yes" responses was recorded to determine the child's emotional and behavioral status. A total of fewer than one "Yes" response was classified as normal, whereas a total of one to twelve "Yes" responses was categorized as deviant behavior[17]. For data analysis, This study employed univariate and bivariate analyses to examine the research data. Univariate analysis was conducted to describe the characteristics of each variable under investigation. This analysis included statistical measures such as the mean, median, standard deviation, interquartile range, minimum and maximum values, frequency distribution, and percentage of each variable. Bivariate analysis was performed to determine the relationship between the independent variable (duration of gadget use) and the dependent variable (emotional state). The statistical method applied for this analysis was the chi-square test, which was used to assess the association between these variables. Additionally, this study, titled "The Relationship Between the Duration of Gadget Use and the Emotional State of Preschool Children at PAUD Bougenville Cawang," underwent a rigorous ethical review process and was deemed ethically appropriate for implementation, having received approval under code of ethics number 010/KEPK-UBN/I/2024.

3 Results

3.1 Descriptive Analysis Results of Respondent Characteristics

This study involved a sample of 27 children, all of whom met the inclusion criteria set for the research. The analysis was conducted to explore various demographic factors, including gender.

Table 2. Respondent Characteristics of Gender

Gender	Frequency	Percentage
Male	18	66.7%
Female	9	33.3%
Total	27	100%

As indicated in Table 2, the gender-based analysis reveals that the majority of children enrolled at PAUD Bougenville Cawang are male, comprising 66.7% (18 children) of the total sample. Conversely, female children represent a smaller proportion, accounting for 33.3% (9 children).

Table 3. Respondent Characteristics of Age

Age Group	Frequency	Percentage
Year Old 3	2	% 7,4
Year Old 4	6	% 22,2
Year Old 5	7	% 25,9
Year Old 6	12	% 44,4
Total	27	100,0%

From table 3, it is known that the frequency of children's ages at PAUD Bougenville Cawang is in the 3-year-old category with 2 children with a percentage of 7.4%. The 4-year-old category has 6 children with a percentage of 22.2%. The 5-year-old category has 7 children with a percentage of 25.9%. Furthermore, for the 6-year-old category, there are 12 children with a percentage of 44.4%. It can be concluded from the results of table 5.2 that the children in PAUD Bougenville Cawang are mostly 6 years old.

3.2 Univariate Analysis Results of Variable Characteristics

Table 4. Descriptive Statistics of Variable

Variabel	Frequency	Percentage
Gadget Duration		
2-5 hours	12	44.4
>5 hours	15	55.6
	27	100
Emotional Statue		
< 1 Normal	13	48.1
>1-12 Deviant	14	51.9
	27	100.0

From table 4, it is known that the frequency of gadget usage duration in children at PAUD Bougenville Cawang is in the category of 2-5 hours with a total of 12 children with a percentage (44.4%) and the category of gadget usage >5 hours there are 15 children with a percentage (55.6%). The frequency of emotional statue in children

at PAUD Bougenville Cawang is in the normal category of 13 children with a percentage (48.1%) and the emotional statue deviant category of 14 children with a percentage (51.9%).

3.3 Bivariate Analysis Results

Table 5. Bivariate Results (Chi ꝺquare Test)

Variabel	Emotional Statue		Total	Sig.
Gadget Duration	**Normal**	**Deviant**		
2-5 hours	12 (100.0%)	0 (0,0%)	12 (44,4%)	0,000
>5 Hours	1 (6,7%)	14 (93.3%)	15(55,6%)	
Total	13 (48,1%)	14 (51.9%)	27 (100,0%)	

Based on table 5. This 2x2 table is suitable for testing with Chi-Square because there is no expected value less than five. The group that uses gadget duration of 2-5 hours turns out to be 100% have normal emotional statue while the group that uses gadget duration >5 hours turns out to be 93.3% have deviant emotional statue. Statistically, the p value can be obtained < from the α value, which is 0.000 < 0.05. This means that Ho is rejected, thus there is an effect of gadget duration on emotional statue.

4 Discussions

4.1 Duration of Gadget Use in Preschool Children at PAUD Bougenville Cawang

Age. The data collected indicate that all 27 children (100%) enrolled at PAUD Bougenville Cawang engage in daily gadget use exceeding one hour. The distribution of gadget usage duration is as follows: 2–5 hours per day: 12 children (44.4%) and More than 5 hours per day: 15 children (55.6%) Excessive gadget use has been associated with adverse effects on the development of preschool children aged 3–6 years. These findings align with previous research investigating the impact of gadget use on the emotional development of preschool-aged children, which reported that 70.5% of children in the study spent more than one hour per day using gadgets[18]. This issue warrants serious attention, as existing guidelines recommend that screen time for young children should not exceed one hour per day. Given the potential adverse effects on early childhood development, it is essential to implement strategies aimed at reducing excessive gadget use and ensuring that children's screen exposure remains within the recommended limits [19]. Another recommendation which advocates that screen time for preschool-aged children should be limited to no more than 30 to 60 minutes per session per day. This guideline underscores the necessity of minimizing screen exposure to promote optimal cognitive, social, and emotional development during early childhood [20].

The research examines the risk of excessive device usage which might lead to gadget addiction [21]. Such a result is also supported by the findings who studied Lise, Child and Family, and points out the necessity of controlling using gadgets by children as the children usually operate them alone [22]. Further, the study shown that a lot of very parents have their children maximum use screen time less than one hour while in real life it depends on their parents and can go as far as four hours [23]. Such extended use of a gadget from time to time can results in adverse effects alterations in the tissues of the brain, and may also increase the risk for emotional difficulties such as depression [24].

Gender. The results of the study regarding gender-based characteristics indicated that the majority of respondents were male, totaling 18 respondents (66.7%). This study found that the number of male children tended to be greater than female children. This finding aligns with previous studies suggesting that gender influences play patterns among preschool-aged children. Boys typically show reluctance to play with girls, forming homogeneous playgroups where boys prefer to interact with fellow boys, and similarly, girls engage predominantly with other girls.

In accordance with Sigmund Freud's theory, during the phallic stage (ages 3–6 years), children tend to identify with the parent of the same gender. Consequently, they imitate gender-specific roles and behaviors similar to their mothers or fathers [25]. Girls generally demonstrate more active communication and possess superior language development skills compared to boys. Of the 22 respondents observed, 55% indicated that boys had lower levels of maturity in personal-social development compared to girls. Issues concerning personal-social development among preschool-aged children are frequently associated with parenting styles. These issues include difficulties in socializing and a lack of independence, affecting approximately 56.61% of preschool-aged children. Additionally, it is estimated that around 5% to 10% of children experience developmental delays [26].

4.2 Emotional Preschool Children at PAUD Bougenville Cawang.

The emotional variable data from Table 4 reveals that among the 27 preschool respondents at PAUD Bougenville Cawang, 13 children (48,1%) were classified from the sample as having a normal range of emotional development, whereas a greater majority of 14 children (51,9%) were in the deviant emotional category. As evidenced, most of the children are having a difficulty with proper management of emotions which can be considered as an emotional deficiency. Owing to the fact that preschool children are at a stage when the need for getting scared and anxious is fulfilled, the level of that need is higher than that of the potentially well-developed prefrontal cortex. It explains why there is greater emotional discharge and less regulation of those reactions [27]. Child emotions normally develop positively in preschool years and therefore improvement in children's efforts to control how they respond emotion wise develops progressively even if the children are ready to express emotions appropriately [28].

In addition, there were emotional issues such as aggressive behavior, irritability, and anxiety that the respondents also faced. As an example, 10 parents indicated that they have witnessed their children's destructiveness and oppositional defiance, most likely due to high exposure to violence on gadgets. It is empirically established that violent themes in video games increase aggression in children [29] and that overuse of gadgets can also excite the nerve system, resulting in irritability [30]. The current research emphasizes the need for quantity and quality control of any time spent with gadgets since non-productive screen time negatively affects the emotional development and creates unpleasant somatic complaints, most commonly, headaches and sleep problems which lead to worse mood regulation.

4.3 The Relationship between the Duration of Gadget Use and Emotions in Preschool Children at PAUD Bougenville Cawang

A study involving 27 preschoolers revealed that all participants used gadgets for more than one hour every day. The group that used gadgets for 2-5 hours turned out to have 100% normal emotional statues, while the group that used gadgets for >5 hours turned out to have 93.3% deviant emotional statues. Statistically, the p value <α value can be obtained, which is 0.000 <0.05. This means that Ho is rejected, thus there is an effect of gadget duration on emotional statues, which shows that the use of gadgets for a longer period of time is directly related to increased emotional problems. Previous research also indicated significant connections between extended gadget use and emotional or social challenges in children, reinforcing the idea that excessive screen time adversely affects a child's emotional well-being [31][32].

Additional studies further corroborate this relationship between gadget use and emotional development. For example, Amalia [18] identified a notable impact of gadget usage on emotional development in 112 preschoolers, while Agustin [33] observed that children with higher gadget use exhibited increased aggression and diminished social skills. Furthermore, research conducted in Malaysia during the COVID-19 pandemic indicated that the more time children spent on gadgets, the higher the risk of emotional stress and disturbances. These findings underscore the significant emotional consequences of excessive gadget use, especially in young children who are still in the process of developing emotional regulation and social skills.

While there are risks associated with gadget use, they can also positively influence children's emotional development when used correctly. Educational apps and guided usage can foster emotional intelligence, creativity, and problem-solving abilities, helping children learn to manage their emotions effectively. To reap these benefits, it's important for parents to establish time limits, oversee the content, and make sure that gadgets are not overused or relied upon instead of in-person interactions, which are vital for emotional and social development.

5 Conclusions

The findings of this study indicate that preschool children who engage in gadget use for more than five hours per day exhibit a higher prevalence of emotional disturbances. This suggests a significant correlation between prolonged screen exposure and children's emotional well-being.

Excessive gadget use has been associated with various adverse emotional effects, including increased anger, irritability, aggression, fear, and anxiety, as well as disruptions in sleep patterns and physical symptoms such as headaches and stomachaches. Collectively, these factors contribute to deteriorated emotional health among preschool-aged children. These findings underscore the importance of implementing effective regulations and limitations on gadget use to mitigate its detrimental impact on children's emotional development and to promote optimal psychological well-being during early childhood.

References

1. Prianti, M.S.: Hubungan Intensitas Penggunaan Gadget dengan Pola Tidur Balita di Desa Sukasari Kecamatan Mandirancan Kabupaten Kuningan tahun 2021, (2021).
2. Budiharto, A., Mentari, S., D, T., & F, K.: Student's Perception, Attitude and Advantage Towards the Use Of Whatsapp Mobile Learning Outside Classroom: An Indonesian Student's Experience. Int. J. Educ. Inf. Technol. Others. 3, 591–599 (2020). https://doi.org/10.5281/zenodo.4314065.
3. Novitasari, W., Khotimah, N.: Dampak Penggunaan Gadget Terhadap Interaksi Sosial Anak Usia 5-6 Tahun. J. PAUD Teratai. 5, 1–4 (2016).
4. Badan Pusat Statistik: Hampir Separuh Anak Usia Dini Sudah Gunakan HP dan Mengakses Internet pada 2022, (2022).
5. Zain, Z. M., Jasmani, F. N. N., Haris, N. H., & Nurudin, S.M.: Gadgets and Their Impact on Child Development. Proc. 82, 6 (2022).
6. American Academy of Pediatric: Screen Time and Children, https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Children-And-Watching-TV-054.aspx#:~:text=For children 2-5%2C limit,about and use parental controls.
7. World Health Organization: Aging and health. World Heal. Organ. (2019).
8. Kementrian Kesehatan Republik Indonesia: Mengatasi dan Mencegah Kecanduan Gadget pada Anak, (2023).
9. Potts, N. L., & Mandleco, B.L.: Pediatric Nursing Caing for Children and their Families. Delmar Cengage Learning, New York (2012).
10. Nurmalitasari, F.: Perkembangan Sosial Emosi Pada Anak Usia Prasekolah, 23(2), 103–111. Bul. Psikol. 23, 103–111 (2015). https://doi.org/10.22146/bpsi.10567.
11. Santrock, W.J.: Perkembangan Anak. Erlangga, Jakarta (2007).
12. Sari, N., Neherta, M., & Fajria, L.: FAKTOR PENYEBAB ORANG TUA MELAKUKAN KEKERASANPADA ANAKNYA. Penerbit Adab, Indramayu (2020).
13. Beatty, Garrett F. & Janelle, C.M.: Emotion regulation and motor performance: an integrated review and proposal of the Temporal Influence Model of Emotion Regulation (TIMER). Int. Rev. Sport Exerc. Psychol. 13, 266–296 (2020). https://doi.org/10.1080/1750984X.2019.1695140.
14. Piek, J. P., Dyck, M. J., Nieman, A., Anderson, M., Hay, D., Smith, L. M.,

... & Hallmayer, J.: The relationship between motor coordination, executive functioning and attention in school aged children. Arch. Clin. Neuropsychol. 19, 1063–1076 (2020). https://doi.org/10.1016/j.acn.2003.12.007.
15. Gavrilova, M., Veraksa, A., Leonov, S., & Musalek, M.: Physical fitness and child development: interrelations in preschool age. (pp. 137-158). . In: In Child development in Russia: perspectives from an international longitudinal study. pp. 137–158. Springer, Cham, Russian (2022). https://doi.org/10.1007/978-3-031-05524-9_7.
16. Sugiyono: Metode Penelitian Kuantitatif, Kualitatif, dan R&D. CV. Alfabeta, Bandung (2017).
17. Depkes RI, I.: Stimulasi, Deteksi Dan Intervensi Dini Tumbuh Kembang Anak. Departemen Kesehatan, Jakarta (2015).
18. Amalia, A. A., Yulianti, M., & Herlianti, D.R..: Pengaruh Gadget Terhadap Perkembangan Emosional Anak Usia Prasekolah Di Tk Pembina Cibereum Kulon Kecamatan Cimalaka Kabupaten Sumedang 2022. JIKSA-Jurnal Ilmu Keperawatan Sebel. April. 5, 35–40 (2023).
19. Starsburger, V.C.: Children, Adolescent, Obesity And The Media. Am. Acad. Pediatr. (2011).
20. Sigman, A.: The impact of screen media on children: a Eurovision for parliament. Improv. Qual. Child. Eur. 3, 88–121 (2012).
21. Gunawan, M.A.A.: Hubungan Penggunaan Gadget terhadap Perkembangan Sosial Anak Prasekolah di TK PGRI 33 Sumurboto Banyumanik. Universitas Diponegoro (2017).
22. Rahayu, N. S., Elan, E., & Mulyadi, S.: Analisis penggunaan gadget pada anak usia dini. J. PAUD Agapedia. 5, 202–210 (2021).
23. Zaini, M., & Soenarto, S.: Persepsi orangtua terhadap hadirnya era teknologi digital di kalangan anak usia dini. J. Obs. J. Pendidik. Anak Usia Dini. 3, 254–264 (2019).
24. Indah Lestari, N., Putri Naulia, R., & Ridlo, M.: Kualitas Tidur Anak Usia Sekolah Dalam Penggunaan Gadget di Pancoran Mas, Depok. Indones. J. Nurs. Sci. 1, 28–35 (2021).
25. Freud, S.: Three Essays on the Theory of Sexuality. Immortal Publishing, Indonesia (1905).
26. World Health Organization: Mental Health, https://www.paho.org/en/topics/mental-health#:~:text=The World Health Organization (WHO,to his or her community".
27. Thompson, R. A., & Meyer, S.: Socialization of emotion regulation in the family. Handb. Emot. Regul. 249–268 (2007).
28. Ndari, S. S., Vinayastri, A., & Masykuroh, K.: Metode Perkembangan Sosial Emosi Anak Usia Dini. Edu Publisher (2019).
29. Darminto, E.: Perilaku Agresif Ditinjau dari Perspektif Teori Belajar Sosial dan Kontrol Diri. J. BK Unesa. 11, (2020).
30. Demirtaş-Madran, H.A.: Violent Video Games and Aggression: A discussion based on the main theoretical frameworks. In: Cham (ed.) In Handbook

of Anger, Aggression, and Violence. pp. 1–22. Springer International Publishing (2022).
31. Tasya, A., Alini, A., & Erlinawati, E.: Hubungan Durasi dan Intensitas Penggunaan Gadget dengan Perkembangan Sosial Anak Pra Sekolah Usia 4-6 Tahun. J. Keperawatan Jiwa. 11, 69–78 (2023).
32. Astria, N., & Ruwaidah, R.: Hubungan Intensitas Penggunaan Gadget Terhadap Perkembangan Emosional Anak Usia Pra Sekolah Di TK Bhayangkari 29 Jambi. J. Kesehat. Saintika Meditory. 6, 19–29 (2023).
33. Agustin, R.P.: Hubungan penggunaan gadget dengan perkembangan emosional pada anak usia preschool, (2019).