

The role of parents in gadget supervision of the development of children aged 4-6 years in ABA Mlangi Kindergarten

Zulfa Azizah Ismawati*, Yekti Satriyandari, Fathiyatur Rohmah

Study Program of Midwifery, Faculty of Health, Universitas Aisyiyah Yogyakarta, Yogyakarta, Indonesia

*Email: zulfaazizah97@gmail.com

Abstract

The development of digital technology has increased children's access to gadgets at an early age. Uncontrolled use of gadgets risks negatively impacting children's motor, cognitive, social, and emotional development. This study aims to determine the relationship between the role of parents in gadget supervision and the development of children aged 4-6 years in ABA Mlangi Kindergarten. This study uses a quantitative approach with a correlational analytical survey design and a cross sectional approach. A sample of 55 children was taken using the quota sampling technique. The instruments used were a questionnaire to assess the role of parents and a Pre-Screening Developmental Questionnaire (KPSP) to assess children's development. The results of the study showed that 58.2% of parents had a good role in supervising gadgets and 67.3% of children had development according to their age. The results of the Spearman Rank test showed that there was a significant positive relationship between the role of parents in gadget supervision and child development ($r = 0.614$; $p = 0.000$) indicating a meaningful positive relationship ($p < 0.05$). The better the parental supervision, the more optimal the child's development. This research supports the importance of family-based interventions in the use of technology by early childhood.

Keywords: child development; gadgets; KPSP technology; role of parents

1. Introduction

The development of digital technology has brought significant changes in people's lives, including in early childhood parenting. Gadgets are now an integral part of children's lives, even from preschool age. Children aged 4–6 years, who are in the golden age of development, are increasingly exposed to digital devices such as smartphones, tablets, and smart televisions. Uncontrolled use of gadgets in this age group can interfere with aspects of motor, cognitive, social, and emotional development.

Along with the increasing prevalence of gadget use among preschool-age children, various studies have been conducted to examine its impact on children's development. A study by Li et al. (2022) found that the duration and type of digital content that children access affects areas of cognitive and social-emotional development. Other research shows that parental supervision plays a key role in mitigating the negative impact of gadgets, especially in forming healthy and age-appropriate usage patterns (Alwhaibi et al., 2022).

However, most of these studies are general in nature and have not specifically examined the role of parental supervision in the context of local culture and with a quantitative approach based on objective instruments such as KPSP (Susa-Erdogan et al., 2022)/

The scientific novelty of this study lies in its focus on the relationship between the role of parents in monitoring the use of gadgets and the developmental level of children aged 4–6 years using a quantitative approach based on the Pre-Screening Developmental Questionnaire (KPSP) in the local preschool education environment, namely ABA Mlangi Kindergarten. No previous research has specifically examined this relationship in the context of local communities by involving total sampling and a nationally standardized developmental measure. Based on this background, the main problems studied in this study are: Is there a significant relationship between the role of parents in gadget supervision and the development of children aged 4–6 years?.

This study aims to fill the gap in previous research by providing empirical evidence on the influence of parental involvement in the use of gadgets on children's developmental outcomes. The main benefits of this study are as a scientific contribution to the field of community midwifery and early childhood education, as well as as a basis for policy-making or family-based educational interventions in optimizing children's growth and development in the digital era.

2. Methods

This research method uses a quantitative approach with a cross-sectional analytical survey design. This design was chosen because it allows researchers to identify the relationship between the role of parents in monitoring the use of gadgets and the development of children aged 4-6 years in one data collection time. This research was conducted at ABA Mlangi Kindergarten, which is a strategic location because the population of preschool-age children in the place is quite representative. The independent variable in this study was the role of parents in monitoring gadgets, while the bound variable was the development of children aged 4–6 years. In addition, the study also considered disruptive variables such as gender, age, stimulation, and family income, although they were not statistically controlled.

The population in this study is 160 children aged 4–6 years who are registered at ABA Mlangi Kindergarten, Sleman, Yogyakarta. This study uses the quota sampling technique of 55 children using the slovin formula and has inclusion and exclusion criteria, so that the researcher sets a "quota" for each category or characteristic in the research sample. The inclusion criteria include: children aged 4-6 years in good health, do not have physical or mental disabilities, parents can read and write and are willing to be respondents. The research has obtained ethical approval from the Health Research Ethics Committee of 'Aisyiyah University Yogyakarta with ethics letter number: 4442/KEP-UNISA/V/2025.

The research instrument consists of two parts, namely a questionnaire to measure the role of parents in the supervision of gadgets that have been developed and tested validly and reliably, and a Pre-Screening Developmental Questionnaire (KPSP) from the Ministry of Health of the Republic of Indonesia to measure children's development according to age. Data collection was carried out directly by distributing questionnaires to parents and observing children using KPSP according to their age. The collected data was analyzed using the Spearman Rank statistical test to test the closeness of the relationship between independent and dependent variables. The entire analysis was carried out using the help of the latest version of SPSS software with a significance level of 0.05.

3. Results and Discussion

3.1. Results

Table 1. Respondent Characteristics

No	Characteristics	Frequency(f)	Presentase(%)
1	The Role of Parents in Supervising Children's Gadgets		
	Good Role	43	78.2
	Medium Role	7	12.7
	Bad Role	5	9.1
2	Development of Children Aged 4-6 Years with KPSP		
	Appropriate Development	34	61.8
	Doubtful Developments	19	34.5
	Deviant Development	2	3.6
3	Children's Age Distribution at ABA Mlangi Kindergarten		
	4	2	3.6
	5	23	41.8
	6	30	54.4
4	Distribution of Parent Education Frequency		
	SD	5	9.1
	SMP	4	7.3
	SMA	21	38.2
	D3	8	14.5
	S1	17	30.9

This study aims to analyze the relationship between the role of parents in gadget supervision and the development of children aged 4–6 years in ABA Mlangi Kindergarten. Data were collected from 55 parent-child pairs through questionnaires on the role of parents and child development measurements using the Pre-Screening Developmental Questionnaire (KPSP). Categories of data in the form of frequency tables and relevant cross-tabulations. The characteristics of the respondents showed that most of the children were at the age of 6 years (54.5%), followed by the age of 5 years (41.8%), and the age

of 4 years (3.6%). The majority of parents have a high school education (38.2%), followed by S1 (30.9%) and D3 (14.5%).

In terms of supervisory roles, the majority of parents were in the good category as many as 43 people (78.2%), medium as many as 7 people (12.7%), and bad as many as 5 people (9.1%).

Table 2. The Relationship of Parent Roles to Child Development

The Role of Parents	Child Development								P Value	Sig. (2-tailed)
	Appropriate		Doubt		Diverge		Jumlah			
	f	%	f	%	f	%	f	%		
Good	33	60	10	18.2	0	0	43	78.2	0.620	0.000
Medium	1	1.8	6	10.9	0	0	7	12.7		
Bad	0	0	3	5.5	2	3.6	5	9.1		
Total	34	61.8	19	34.5	2	3.6	55	100		

Based on the cross tabulation table between the role of parents in supervising the use of gadgets and the development of toddlers aged 4–6 years at ABA Mlangi Kindergarten, it is known that of the 43 parents who have a good role, most of their children showed appropriate development as many as 33 children (60%), while 10 children (18.2%) experienced dubious development, and none showed deviant development. In the medium role category, only 1 child (1.8%) had appropriate development, 6 children (10.9%) had doubtful development, and none deviated. Meanwhile, in the category of bad roles, no children with appropriate development were found, but there were 3 children (5.5%) with questionable development and 2 children (3.6%) with deviant development.

The results of the Spearman Rank statistical test showed that there was a strong and significant relationship between the role of parents and child development, with a correlation coefficient value of $r = 0.620$ and $p\text{-value} = 0.000$, indicating a meaningful positive relationship ($p < 0.05$). This means that the better the role of parents in supervising the use of gadgets, the more optimal the child's development.

3.2. Discussion

3.1. The Role of Parents in Gadget Supervision of Children 4–6 Years Old

The distribution of the frequency of parental roles in supervising the use of gadgets for children aged 4 and 6 years at ABA Mlangi Kindergarten, it is known that most parents have a good role category, which is as many as 43 people (78.2%). Meanwhile, 7 people (12.7%) were in the medium role category, and only 5 people (9.1%) were included in the bad role category. This data shows that the majority of parents have carried out a fairly optimal role in supervising the use of gadgets in children. This includes timing of use, selection of appropriate content, and parental involvement in children's digital activities. However, there are still a small number of parents whose role is not optimal, which can have a negative impact on children's development.

The questionnaire instrument consisted of five Positive (Favorable) items from the research results, finding that the five Positive (Favorable) items reflected active mediation and restrictive patterns, which included the positive surveillance category. The high frequency of "Frequent" responses to this item supports the data that 78.2% of parents show a good role in gadget supervision while the questionnaire instrument consists of five Negative (Unfavorable) items, the results of the study found that these five Negative (Unfavorable) items reflect passive coviewing or even pseudo-supervision. For example, accompanying children but not paying attention to the content consumed tends to make children feel supervised when in fact they are not, reported with the answer "Rarely" or "Never" by respondents, which shows that the majority of parents do not practice a form of passive assistance. This reinforces the value that most respondents carry out a consistent pattern of active and restrictive supervision.

Research shows that most parents in ABA Mlang Kindergarten have a good role in supervising the use of gadgets, which is as much as 78.2%. These findings show that most parents are aware of the importance of controlling the use of gadgets, including limiting time, choosing content, and accompanying children in digital activities. A study according to Anitha (2021) found that children who watch digital media with their parents (co-viewing) tend to show better social and communication

development than those who watch alone. Therefore, parental involvement is very important in minimizing the negative effects of digital media (Liza et al., 2023).

According to Bukhalenkova and Almazova (2023), the role of parental supervision is very important because gadgets can affect a child's cognitive and physical development. When children use gadgets excessively unsupervised, the risk of decreased social and cognitive function increases significantly (Bukhalenkova & Almazova, 2023).

Research according to Rashid (2021) emphasizes that excessive use of gadgets has a real impact on children's physical and mental health, and suggests the need for stricter supervision by parents and the promotion of physical activity as healthy alternatives (Mawah et al., 2021). Li et al. (2022) in their research also emphasized that uncontrolled exposure to technology at preschool age can have an impact on neurodevelopmental delay, so parental assistance is a vital aspect in mitigating these risks (Li et al., 2022)

3.2. Development of Children Aged 4-6 Years with KPSP

Based on the distribution of child development frequency, it shows that out of 55 children aged 4-6 years at ABA Mlangi Kindergarten, as many as 34 children (61.8%) are in the developmental category according to their age developmental stage. Furthermore, there were 19 children (34.5%) who were classified as developmentally doubtful, and 2 children (3.6%) were in the category of developmentally deviant. This data shows that most children show appropriate development, whether physically, cognitively, socially, or emotionally. However, there is still a proportion of children whose development is not optimal, even a small number show developmental irregularities. This can be an important indicator to further study the factors that affect children's development, research from Anatasya et al. (2024) states that authoritative parenting patterns (i.e. warm but firm) have proven to be the most effective in limiting the use of gadgets while maintaining a positive emotional relationship with children. Development of children aged 4–6 years. Most of the children in this study (61.8%) were in the appropriate developmental category. However, 34.5% showed doubtful development and 3.6% deviated. This is a signal that although parental supervision is quite good, other factors still affect children's development (Anatasya, 2024).

Virginia Lérida-Ayala et al. (2023) explain that dependence on screens, including games and social media, contributes to behavioral disorders and developmental delays in children and adolescents (Virginia et al., 2023). This is in line with the findings of Raju et al. (2023), which underscore the existence of a link between digital media addiction and the risk of neurocognitive impairment (Raju et al., 2023).

Based on the results of the developmental examination using the KPSP format, as many as 34 children (61.8%) showed appropriate development, 19 children (34.5%) were doubtful, and 2 children (3.6%) deviated. These results show that although most children show appropriate development, there are still 36.4% of children who need further attention in developmental stimulation, particularly in more complex aspects such as language and socialization. According to Ibrahim et al. (2024), developmental screening such as KPSP and Denver II shows consistency in detecting delays in areas such as speech ability and fine motor movements.

Their results found that aspects of language and social interaction are often most vulnerable to being affected when children use gadgets for too long without active interaction with the surrounding environment (Ibrahim et al., 2024). This data is in line with the findings of Raudhati & Agustina (2022), who stated that suboptimal stimulation due to limited direct interaction with the environment and others can cause developmental delays in preschool. Therefore, the results of this study indicate the importance of strengthening the role of parents not only in monitoring gadgets, but also in providing appropriate and routine developmental stimulation (Raudhati & Agustina, 2022).

3.3. The Relationship between Parental Roles and Child Development

The results of the analysis showed a correlation coefficient value of 0.620 with a significance of 0.000, which means that there is a strong and significant relationship between the role of parents in gadget supervision and child development. The better the role of parents in supervision, the more optimal the child's development. These findings are consistent with the study of Wang et al. (2022)

which stated that an active and engaged parenting style correlates with better behavioral and social development in preschool-age children. The age period of 0–6 years is the golden age of brain development, and the environment, including parental involvement, is the main determinant of optimal child growth and development (Wang et al., 2022).

Parental Education and Parenting Quality. The majority of parents in this study had secondary to higher education. This contributes to a better understanding of the importance of limiting exposure to gadgets and stimulating development. Susa- Erdogan et al. (2022) stated that parental education correlates with the quality of children's teacher relationships at school, which in turn affects children's social-emotional development. The higher the education of parents, the better their ability to guide and supervise their children appropriately. The most common strategies used by parents include: limiting screen time, choosing educational content, and accompanying children when using gadgets. This is in accordance with the findings of Alwhaibi et al. (2022) that active surveillance and the use of shared gadgets (co-viewing) lower the risk of addiction and negative content (Alwhaibi et al., 2022). In addition, Maaslahah's (2024) research emphasizes that parental emotional involvement during a child's use of technology increases children's emotional intelligence (Maaslahah, 2024). Excessive exposure to gadgets has been shown to cause various disorders such as sleep disorders, obesity, and social isolation. Al-anazi & Al-harbi (2022) stated that children who are used to using gadgets before bed experience a decrease in sleep quality and a delay in the natural sleep phase (Al-anazi & Al-harbi, 2022).

A study by Mawah et al. (2021) also showed that intensive exposure to radiation from gadgets can have an impact on sleep rhythms, reduce melatonin production, and increase irritability. The role of parents in supervising the use of gadgets has been shown to play an important role in early childhood development. Based on the results of the research, the majority of parents at ABA Mlangi Kindergarten have done quite good supervision of gadgets. This is in line with the findings of Anatasya et al. (2024), who stated that parental involvement in guiding the use of digital technology can prevent exposure to negative content and minimize the risk of addiction (Mawah et al., 2021). Uncontrolled exposure to gadgets can lead to impaired cognitive development. Research by Hidayatuladkia et al. (2021) confirms a significant relationship between gadget use and cognitive delay in preschoolers (Hidayatuladkia et al., 2021).

According to Abdullah (2022), the earlier children are introduced to mobile devices, the greater the risk they have of overuse later in life. Children who start using gadgets before the age of 5 tend to find it more difficult to control the duration and purpose of using the device, making them more susceptible to negative impacts such as behavioral, emotional, and social disorders (Al-mamun et al., 2024). Another side effect is sleep disturbances, as described by Mawah et al. (2021) and Al-anazi & Al-harbi (2022), which suggests that the intensity of gadget use before bed worsens the quality of children's sleep. In terms of social development, gadgets can interfere with children's interactions.

High screen time reduces children's ability to interact socially. Al-mamun et al. (2024) suggest that consistent, warm, and engaged parenting can minimize the negative effects of gadget use (Al-mamun et al., 2024). Research by Darpi et al. (2024) supports this, confirming that parental mentoring has a strong correlation with children's language, social, and emotional development (Darpi et al., 2024).

Effective supervision strategies are also described by Sari et al. (2024), who suggest an active approach, such as limiting screen time, choosing educational content, and involving children in discussions about what they see. Liza et al. (2023) noted that permissive parenting without rules actually worsens the negative impact of gadget use (Liza et al., 2023). The influence of technology on children's behavior is also documented by Khairani et al. (2024), who found that children who frequently play with gadgets show increased aggressive behavior and lack empathy (Khairani et al., 2024). These findings are reinforced by Haryanto (2024) who underline the need for an active role of parents in overcoming gadget addiction from an early age (Haryanto et al., 2024).

In addition, the roles of fathers and mothers have their own uniqueness in parenting. Surate (2023) states that the involvement of fathers in children's activities significantly improves children's language and cognitive abilities (Surate, 2023). Highlights that in this digital era, parents are not only required as protectors, but also as digital literacy educators for their children. Without this, children will be more easily exposed to age-inappropriate content

According to Desra et al. (2020) added that the basic needs of children in development must include affection, stimulation, and a conducive environment (Desra Yunita, Amir Luthfi, 2018). This is all

closely related to the supervision of the use of gadgets. Sriyanto & Hartati (2022) also stated that all aspects of development affect each other, and an imbalance in one aspect due to gadgets can trigger a total delay (Sriyanto & Hartati, 2022).

Social and Psychological Implications. Gadgets also have an impact on social interaction. Children who often use gadgets tend to have difficulty building interpersonal relationships. This is strengthened by Widya (2020) who found that high screen time has an impact on children's low participation in social games in the surrounding environment (Widya, 2020). According to Khairani et al. (2024), uncontrolled use of gadgets increases the likelihood of children becoming less empathetic, more impulsive, and showing aggressive behavior patterns (Khairani et al., 2024). Hidayatuladkia et al. (2021) also emphasized the importance of the role of parents in limiting duration, filtering content, and conducting active mentoring to reduce the risk of gadget addiction and social behavior disorders in children (Khairani et al., 2024) concluded that there is a significant relationship between the quality of parental supervision of gadgets and the development outcomes of preschoolers. These findings support the urgency of direct parental involvement in children's digital activities by considering the various results of the study, it is clear that a holistic approach involving time control, active mentoring, and providing education from an early age is the most effective strategy in preventing the negative impact of gadgets on early childhood development (Wardianti et al., 2024).

The limitations of this study did not examine other factors such as the duration of screen time and the type of content were not evaluated in depth. This discussion emphasizes that the active role of parents in supervising the use of gadgets has a great contribution in preventing developmental disorders in early childhood. Interventions that target parenting patterns, screen time control, and content selection are the key to preventing the negative impact of gadgets, as well as limitations lie in the methodological aspect, namely the inability to collect data simultaneously at one time due to technical constraints in the field. This has the potential to affect the homogeneity of the context of filling out questionnaires and the implementation of KPSP, because they are carried out at different times. Nonetheless, these results demonstrate a strong scientific contribution to support the importance of family-based interventions in monitoring technology use in early childhood. Thus, the results of this research can be the basis for health workers, teachers, and policymakers in developing digital-friendly and family-based children's growth and development education and development programs.

References

- Al-anazi, N. S., & Al-harbi, Z. (2022). Association of Electronic Media Use and Sleep Habits Among Secondary School Students in Al- Madinah. *Cureus*, 14(July 2021), 1–6. <https://doi.org/10.7759/cureus.22334>
- Al-mamun, F., Hasan, E., Mostofa, N. B., Akther, M., & Mashruba, T. (2024). Prevalence and factors associated with digital addiction among students taking university entrance tests : a GIS-based study. *BMC Psychiatry*, 1–16.
- Alwhaibi, R. M., Omer, A. B., Khan, R., Albashir, F., & Alkuait, N. (2022). Assessment of the Correlation between the Levels of Physical Activity and Technology Usage among Children with Down Syndrome in the Riyadh Region. *International Journal of Environmental Research and Public Health*, 19.
- Anatasya, E. (2024). Peran Orang Tua Dalam Pengawasan Penggunaan Teknologi Digital Pada Anak. *Jurnal Sadewa*, 2(1).
- Bukhalenkova, D., & Almazova, O. (2023). Active screen time and imagination in 5 – 6-years-old children. *Frontiers In Psychology*, May, 1–7. <https://doi.org/10.3389/fpsyg.2023.1197540>
- Darpi, C., Teknologi, M., Universitas, I., & Dini, A. U. (2024). Christina Darpi * Magister Teknologi Informatika Universitas Pradita DOI: 10.29313/ga:jpau.v8i1.13501. *Golden Age : Jurnal Pendidikan Anak Usia Dini*, 8(1), 129–136. <https://doi.org/10.29313/ga>
- Desra Yunita, Amir Luthfi, E. (2018). HUBUNGAN PEMBERIAN STIMULASI DINI DENGAN PERKEMBANGAN MOTORIK PADA BALITA DI DESA TANJUNG BERULAK WILAYAH KERJA PUSKESMAS KAMPAR TAHUN 2019. *Jkep*, 3(2), 96–107. <https://doi.org/10.32668/jkep.v3i2.205>
- Haryanto, D., Di, K., Rw, R. T., Pucung, P., & Selatan, T. (2024). Peran Orang Tua Dalam Mengatasi Kecanduan Gadget Pada Anak Usia. *RISOMA*, 2(4), 244–252.

- Hidayatuladkia, S. T., Kanzunudin, M., & Ardianti, S. D. (2021). *Peran Orang Tua dalam Mengontrol Penggunaan Gadget pada Anak Usia 11 Tahun*. 5(3), 363–372.
- Ibrahim, A., Sudirman, A. A., Rokani, M., Modjo, D., & Gorontalo, U. M. (2024). ANALISIS PENGGUNAAN SKRINING KPSP DENGAN DENVER II TERHADAP PERKEMBANGAN ANAK USIA 3-5 TAHUN. *Jurnal Kesehatan Tambusai*, 5(September), 9975–9985.
- Khairani, F., Naria, E., Lubis, I. K., Koka, E. M., Harahap, A. F., Rangkuti, I. M., Enjelika, M. T., & Daulay, H. (2024). Hubungan peran orang tua terhadap intensitas penggunaan gadget pada anak usia dini di Kabupaten Tapanuli Selatan The relationship between parental roles and the intensity of gadget use in early childhood in South Tapanuli Regency. *TROPICAL PUBLIC HEALTH JOURNAL*, 04(01), 52–58.
- Li, M., Li, J., Al, M., Yasin, I., & Osman, M. N. (2022). Analysis on the Cognitive Impact of Social Mobile Games on Left-Behind Children in the Era of Big Data. *Frontiers in Public Health*, 10(June), 1–10. <https://doi.org/10.3389/fpubh.2022.915801>
- Liza, M. M., Iktidar, M. A., Roy, S., Jallow, M., Chowdhury, S., Tabassum, M. N., & Mahmud, T. (2023). Gadget addiction among school- going children and its association to cognitive function : a cross- sectional survey from Bangladesh. *BMJ Paediatrics Open*, 1–7. <https://doi.org/10.1136/bmjpo-2022-001759>
- Maaslahah, S. (2024). BERMAIN GADGET PADA ANAK USIA DINI DUSUN LOROKAN. *AL-ATHFAL: Jurnal Pendidikan Anak*, 5, 157–170.
- Mawah, J., Banik, E., Akter, Y., Deen, J. I., Jahan, A., Akter, F., Paul, A., & Mannan, A. (2021). Prevalence and impact of the use of electronic gadgets on the health of children in secondary schools in Bangladesh: A cross-sectional study. *BMJ International*, May, 1–9. <https://doi.org/10.1002/hsr2.388>
- Raju, V., Sharma, A., Shah, R., Tangella, R., Yumnam, S. D., Singh, J., Yadav, J., & Grover, S. (2023). Problematic screen media use in children and adolescents attending child and adolescent psychiatric services in a tertiary care center in North India. *Indian Journal of Psychiatry*, 83–89. <https://doi.org/10.4103/indianjpsychiatry.indianjpsychiatry>
- Raudhati, S., & Agustina. (2022). Perkembangan Anak Usia Prasekolah di TK Ash Shafiyah Kabupaten Bireuen Development of Preschool Age Children in Ash Shafiyah Kindergarten Bireuen District. *Journal of Healthcare Technology and Medicine*, 8(2), 762–772.
- Sriyanto, A., & Hartati, S. (2022). Perkembangan dan Ciri-Ciri Perkembangan pada Anak Usia Dini. *Journal Fascho: Jurusan Pendidikan*, 2(1), 28–32.
- Surate, I. P. P. (2023). Hubungan Intensitas Gadget, Pola Asuh, Dengan Perkembangan Bahasa Dan Bicara Anak Usia Pra-sekolah Di PAUD Terpadu Mokusato. *Indonesian Scholar Journal of Nursing and Midwifery Science (ISJNMS)*, 3(03), 1157–1163. <https://doi.org/10.54402/isjnms.v3i03.403>
- Susa-Erdogan, G., Benga, O., Albu-Răduleț, M., & Macovei, T. (2022). Child temperament and child-teacher relationship quality: Implications for children’s emotional functioning during preschool period. *Frontiers in Psychology*, 13(November), 1–12. <https://doi.org/10.3389/fpsyg.2022.992292>
- Virginia, L., Aguilar-parra, J. M., Collado-soler, R., Alf, M., Miguel, J., & Rosa, A. L. (2023). Internet and Video Games : Causes of Behavioral Disorders in Children and Teenagers. *Children*.
- Wang, Y., Tao, Y., Zhu, L., Li, Y., & Huang, D. (2022). Preschool children’s negative affect and social skills in China: The moderating effect of the teacher–child relationship. *Frontiers in Psychology*, 13(September), 1–12. <https://doi.org/10.3389/fpsyg.2022.991039>
- Wardianti, D., Djupri, D. R., Yatnikasari, A., & Rostarina, N. (2024). *Hubungan Pengawasan Orang Tua dalam Penggunaan Gadget dengan Tingkat Perkembangan pada Anak Usia Prasekolah di Wilayah RW 001 Kelurahan Pondok Betung Kecamatan Pondok Aren Kota Tangerang Selatan*. 2(4).
- Widya, R. (2020). Dampak Negatif Kecanduan Gadget Terhadap Perilaku Anak Usia Dini Dan Penanganannya Di PAUD Ummul Habibah. *Jurnal Abdi Ilmu*, 13(1), 29–34.