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The relationship of gadget use to social behavior of children

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Abstract

The problem stems from the increasing prevalence of gadgets in children's daily lives, which has raised concerns about their potential impact on their social development. As gadgets become more integrated into the family environment, there is a need to explore whether their use may negatively affect children's ability to interact and develop socially. To achieve this goal, the study adopts a quantitative approach and uses cluster random sampling to select 150 parents whose children are enrolled in five kindergartens (TK) in Natar District. These children are between five and six years old, which is a critical period in their social development. Data collection in this research will be done through a structured questionnaire distributed to the parents. This questionnaire is designed to capture both the frequency of gadget use and various aspects of children's social behavior. The study uses Pearson Product Moment Correlation Analysis to examine the relationship between these two variables. In terms of data analysis, the results show a statistically significant relationship between gadget use and social behavior. With a Pearson correlation coefficient of -0.930 and a significance level (sig. 2-tailed) of 0.000 (which is less than the 0.05 threshold), the results indicate a strong, negative correlation. This suggests that higher levels of gadget use are associated with poorer social behavior in children. In conclusion, the study provides evidence that gadget use in young children has a significant impact on social behavior.

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INTRODUCTION

Early childhood refers to a period of rapid personal growth and development that is heavily impacted by the environment. Bronfenbrenner states in his theory of ecological systems that children's growth and development are heavily impacted by the environment, one of which is the chronosystem environment, which includes socio-historical conditions of child development (Egan & Pope, 2022). In this age of globalization, technology is evolving at a very fast pace, which has both benefits and drawbacks for human survival. All things in the world that are visible to the human eye but not directly accessible are made easier for humans to access by advanced technology. Conversely, however, as per (Oktaria & Putra, 2020).

Skinner proposes that there are two categories of social conduct: innate behavior (also known as natural behavior) and operant behavior (also known as operant behavior). Reflexes and instincts that are ingrained in a person from birth are considered natural behavior (Ludwig & Welch, 2022). On the other hand, operant behavior is behavior that develops via learning. Operant behavior is created, taught, and controlled behavior that is malleable to change as a result of learning. An English word for a small electrical device with multiple uses is "gadget." Osland states. Devices in and of themselves can include laptops, tablets, PCs, cell phones, and smartphones. The gadgets of today are considerably different from those in the early years of production, when they were limited to using a phone and sending messages and had ugly designs (Colborne, 2022). While the introduction of touchscreen technology adds even more appeal to today's electronics, they are still quite appealing items with lovely designs.

The device also has any detrimental effects on a child's growth. Childhood is a child's psychological "golden age," during which they discover things about the world they do not yet know. Since early experiences have a significant impact on later developments, children's growth will be hindered if they are already addicted to and negatively impacted by their gadgets (Utami et al., 2023). Addiction is the outcome of children using gadgets excessively. Youngsters are adept mimics. Everything they see and hear will be done by them. The characteristics of addiction are self-withdrawal, loss of control, obsession, and less tolerance (Griffiths & Kuss, 2017).

According to Bartosiewicz et al., (2020) research, 42.1% of preschoolers are comparatively exposed to technology, as demonstrated by the fact that many of these children utilize their devices to play games or watch films. Additionally, as per (Fatmawati, 2023), the impact of early childhood gadget use on a child's character can be both positive and harmful, contingent upon the guidance and oversight provided by parents and other adults regarding what is developmentally appropriate for young children. "The use of gadgets has an impact on children's social and emotional development. Addiction to gadgets arises from parents' distraction from their children. Youngsters often believe that they cannot be parted from their device since they are more bonded to it. A child's exposure to violent displays on their devices can lead to emotional disorders including aggression. These days, a lot of video games have violent, violent, rape, and murderous elements. Addiction is the outcome of children using gadgets excessively. Youngsters are adept mimics. Everything they see and hear will be done by them. The characteristics of addiction are self-withdrawal, loss of control, obsession, and less tolerance (Griffiths & Kuss, 2017).

The Impact of Technology on Early Childhood Speaking Ability: Children's social lives are more impacted by technology. Young children who use technology and the internet have an impact on how they think about things outside of digital media. Due to a lack of social interaction with their classmates, they will also feel uneasy in their surroundings, which will impair their capacity to communicate. To prevent their children from being dependent on technology and to remind them to interact with others and their surroundings, parents should keep an eye on their kids when they play with electronics. In fact, gadgets are necessary for communication, but parents must constantly supervise and guide their children (Nirwana et al., 2018). Early childhood speaking abilities, or children's social lives, are more impacted by technology than anything else. Early exposure to technology and the internet shapes children's perspectives on the world beyond these digital platforms. Due to the lack of social engagement with their classmates, they may also feel as though they are lost in their surroundings, which will hinder their ability to communicate. When their kids are using technology, parents should watch over them to make sure they don't get dependent on it and remember to

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TUNAS SILIWANGI
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interact with others in the community. While gadgets are undoubtedly necessary for communication, kids still need to be constantly supervised and guided by their parents. Children who use electronics to pass the time are frequently the result of parents who are too busy to give their children the attention they need (Rahayu et al., 2022). Researchers are interested in studying the connection between early childhood social behavior (ages 5–6) and gadget use based on the above description and preliminary investigation.

METHOD

This study employs a correlational research design within a quantitative framework, aimed at understanding the relationship between gadget usage and children's social behavior. According to (Anggiarini, 2016), a correlational study seeks to determine the relationship between one variable and another or several variables. The strength of the correlation coefficient reflects the degree of association between these variables. In this research, the primary objective is to examine the relationship between gadget use and the social behavior of children aged five to six. The population for this study consists of parents residing in Natar District, South Lampung Regency, who have children between the ages of five and six. According to (Sugiyono, 2013), a population is defined as the entire group of individuals or objects in a specific area that share certain characteristics and require investigation for the purpose of generalization and conclusion. In this case, the population includes the parents of children attending 53 kindergarten (TK) institutions within the district.

Research Objectives the primary objective of this research is to explore the relationship between the use of gadgets and the social behavior of children aged five to six in Natar District, South Lampung Regency. Specifically, the study seeks to:

1. Identify the frequency and patterns of gadget use among young children.
2. Assess the social behavior of children in the targeted age group.
3. Examine the correlation between gadget use and social behavior in children, providing insights into whether higher gadget use is associated with adverse social outcomes.

Data collection is conducted through the use of a structured questionnaire. The questionnaire is distributed to the parents of children in the selected kindergarten institutions. It includes questions designed to measure both the frequency and type of gadget use by children, as well as parental assessments of their children's social behavior. The questionnaire employs a Likert scale format to quantify responses, allowing for standardized data collection across the sample (Joshi et al., 2015).

The data analysis involves the use of Pearson Product Moment correlation to assess the relationship between gadget use and children's social behavior (Putra et al., 2022). Pearson correlation is an appropriate statistical tool for measuring the strength and direction of the relationship between two continuous variables. In this study, gadget use serves as the independent variable, while social behavior is the dependent variable. The correlation coefficient obtained from this analysis indicates the nature of the relationship. A negative correlation would suggest that increased gadget use is associated with lower levels of social behavior, while a positive correlation would indicate the opposite. The statistical significance of the results is determined by comparing the p-value (sig. 2-tailed) to the standard threshold of 0.05.

By employing these data collection and analysis techniques, the study aims to provide clear, evidence-based conclusions on the relationship between gadget use and social behavior in young children, contributing to a deeper understanding of the potential developmental implications of early gadget exposure.

RESULTS AND DISCUSSION

Result

Claims that kids will struggle with self-adjustment, lack independence in their thoughts and actions, become irate easily, and refuse to listen to advice. In addition, kids who aren't provided electronics grow obstinate and irrational, prefer to play with electronics indoors rather than outside with friends or family, don't participate in conversation when playing with friends, ignore parental guidance, and refuse to cooperate when asked (Putri, 2022). The impact of gadgets on early childhood Speaking Ability: Technology has a greater impact on children's social lives. Young children who use technology and the internet have an impact on how

TUNAS SILIWANGI
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Volume. 10, Number. 2, October 2024

they think about things outside of digital media. In addition, because they aren't interacting socially with their peers, they won't feel comfortable in the surroundings, which will hinder their capacity to communicate. To prevent their children from being dependent on technology and to remind them to interact with others and their surroundings, parents should keep an eye on their kids when they play with electronics. While gadgets are undoubtedly necessary for communication, parents must constantly supervise and guide their children (Nudin et al., 2024).

Technology has a greater impact on a child's social life than it does on their early speaking abilities (Nirwana et al., 2018). Early exposure to technology and the internet shapes children's perspectives on the world beyond digital media. Due to the lack of social engagement with their classmates, they will also feel as though they are not comfortable with the surroundings, which will hinder their ability to communicate. When their kids are using technology, parents should keep an eye on them to ensure that they don't get dependent on it and that they remember to interact with others and their surroundings. Technology has a greater impact on a child's social life than it does on their early speaking abilities. Early exposure to technology and the internet shapes children's perspectives on the world beyond digital media (Third et al., 2017). Due to the lack of social engagement with their classmates, they will also feel as though they are not comfortable with the surroundings, which will hinder their ability to communicate. When their kids are using technology, parents should keep an eye on them to ensure that they don't get dependent on it and that they remember to interact with others and their surroundings.

According to Bronfenbrenner's Ecological Theory (Santrock, 2011), children's social environment and the individuals who shape it are crucial factors in their development. Strong interpersonal ties to cross-cultural connections are among the five environmental systems that make up Bronfenbrenner's ecological theory. According to ecological theory, social interactions happen in a child's immediate and wider environments. Through direct observation and socialization, children learn about the world around them. If this is not the case, the child's social development will be hindered. It has been discovered that children who use electronics have more negative effects than favorable ones, albeit this varies depending on how parents teach and watch over their children.

Discussion

The analysis's findings demonstrated a markedly negative correlation between kids' social behavior and their use of electronics between the ages of five and six. According to this study, there is a correlation between changes in social behavior and changes in gadget use. There is a high and unfavorable correlation between using gadgets and social conduct (Ningrum et al., 2024). The negative connection demonstrates that social conduct declines as technology use rises, and the opposite relationship is also bad. Children become difficult to control, such as not wanting to interact with peers, having uncontrollable emotions, which makes it difficult for them to interact properly, not caring about the person they are speaking to, not liking crowds, and being lost in their own world. These findings are based on data collected in the field. Children also have trouble adapting to the surrounding environment, which makes them choose to withdraw from social situations. This is brought on by children using electronics without parental supervision and by prolonged gadget use. If this keeps happening, it will have an impact on young children's social behavior.

Users are free to use gadgets for as long as they need them, but parents should restrict how much time their kids spend using them. This is especially important for preschool-aged kids, as according to (Riyanasar et al., 2023), parents should think carefully about how much time their kids spend using gadgets because too much time spent using them can negatively impact a child's development. A child should only spend less than an hour a day in front of a screen. According to (Fatmawati, 2023) preschoolers should use electronics for 30 to 1 hour each day on average. The findings indicated that students in the Natar District used their devices for an average of five to six hours a day, falling into the (frequent) category. Prolonged use of gadgets has a negative effect on children's social behavior. Due to the lack of social interaction in their surroundings, children's social behavior declines. Instead of interacting with others, children become accustomed to being by themselves and content with their own world, forgetting about other people and their surroundings.

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One crucial factor that must be taken into account to lessen and prevent the harmful effects of gadgets is parental supervision and involvement in their activities. According to (Suherman et al., 2021) parental guidance and support are crucial in reducing preschoolers' exposure to technology addiction. Therefore, it is advised to use democratic parenting when educating young children. This is consistent with studies (Munawar & Nisfah, 2020) that shows children's addiction to gadgets is greatly impacted by aggressive discipline. By using firm discipline, committing to upholding open lines of communication with their kids, rewarding them with gifts, and enforcing reasonable consequences instead of resorting to physical punishment, parents can help their kids overcome their addiction to gadgets.

When it comes to helping kids play with devices, parent-child contact might be beneficial for those who help kids. parents should control their children's gadget use by using parental mediation more frequently and using gadgets responsibly. In order to get kids more engaged with parents and away from electronics, parents should also spend more time interacting with their kids. Furthermore, there should be increased government outreach regarding recommended screen times for kids (Surandika et al., 2023). It is generally advised against allowing young children to use electronics as this can disrupt their natural growth and development process. The usage of gadgets has limited options for research because it allows for only one-way contact, or replying without being able to reply. Youngsters are incapable of picking up social skills like communication or emotion recognition on their own. This is consistent with the views expressed by (Dewi et al., 2021) that children who use technology frequently lose sight of their surroundings, become difficult to communicate with, show less interest in and response to conversations, and perform less well academically. In accordance with the requirements, the sig. (2-tailed) value in the table above, which shows a significant correlation or association between gadgets (variable x) and social behavior (variable y) in Natar District, is 0.000 smaller than 0.05.

Correlations

		xtotal	ytotal
xtotal	Pearson Correlation	1	-,930**
	Sig. (2-tailed)		,000
	N	150	150
ytotal	Pearson Correlation	-,930**	1
	Sig. (2-tailed)	,000	
	N	150	150

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 1. The correlation between gadgets as variable (x) and social behavior as variable (y)

The correlation between gadgets as variable (x) and social behavior as variable (y) is -0.930, according to the SPSS calculation findings, indicating a negative association. With a relationship score of -0.930, this indicates a negative relationship between early childhood social behavior and gadgets. It is evident from the computation above that the value = -0.930 Variable X and variable Y's development have a significant and negative association if the value of r is near to negative (-1). Thus, there will be a drop in social behavior (variable y) and vice versa with an increase in gadgets (variable X). In conclusion, there is a negative correlation between children's social behavior and gadget use—the latter leading to the former's reduction. In order to assess the significance of the correlation coefficient, the t-count value and the t-table will also be compared.

The t value that was computed is 30.781. At a significance level of 0.05, the t table with dk = n-2 = 150-2 = 148 yields a value of 1.960; hence, 30.781> 1.960 or t count> t table means that Ha is accepted and Ho is rejected. Testing the hypothesis reveals that Ha is accepted, indicating a strong correlation between

TUNAS SILIWANGI
P-ISSN : 2476-9789 E-ISSN: 2581-0413
Volume. 10, Number. 2, October 2024

technology use and social conduct. Thus, at the 5% significance level, it may be said that the coefficient is significant. The coefficient of determination formula can be used to determine the extent to which a gadget influences social conduct in Natar District. KP = r2 x 100% = -0.9302 x 100% = 0.864 x 100% = 86.4% indicates that there is an 86.4% association between gadgets and children's social behavior. Based on the computations, it can be inferred that 86.4% of children's social conduct is influenced by gadgets, with the remaining 13.6% being governed by other factors.

CONCLUSION

The use of gadgets and early children social behavior are negatively and significantly correlated, according to the findings of the research and discussion conducted for this study (Erna et al., 2023). The use of technology and social conduct in children between the ages of five and six is strongly correlated negatively, as seen by the Pearson Product Moment Correlation analysis results, which show a correlation of -0.930 with a coefficient of determination of 86.4%. The excessive amount of time spent using gadgets and the absence of parental guidance when utilizing them both contribute to the detrimental association between gadget use and social conduct.

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TUNAS SILIWANGI
P-ISSN : 2476-9789 E-ISSN: 2581-0413
Volume. 10, Number. 2, October 2024

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