THE IMPACT OF ONLINE GAMING ON SOCIAL SKILLS AMONG FOURTH-GRADE STUDENTS IN A SEMI-URBAN INDONESIAN SCHOOL

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Abstract

This study aims to examine the influence of online gaming intensity on the social skills of fourth-grade students at SD Inpres Tonggorisa, a public elementary school in a semi-urban area characterized by limited digital literacy. Employing a quantitative approach with a correlational design, data were collected from 30 students using a structured questionnaire that measured the frequency of online gaming and social skills indicators based on the Social Skills Rating System (SSRS). The results of linear regression analysis revealed a significant negative relationship between the two variables. Students with higher gaming intensity demonstrated lower levels of cooperation, self-control, and communication. These findings support Erikson's theory of psychosocial development and highlight the urgent need for collaboration between schools and families to foster adaptive digital literacy. The study contributes to the limited body of research on digital behavior in non-urban settings and underscores the importance of implementing context-based character education strategies in the digital era.

Keywords: *Online Gaming, Social Skills, Elementary Students, Digital Literacy, Character Education*

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A. Introduction

The rapid advancement of digital technology over the past two decades has significantly transformed various aspects of daily life, including the lives of children. Smart devices such as smartphones and tablets have become inseparable from their routines, even from an early age. Among the most popular digital activities among children is online gaming. Once merely a form of entertainment, online games have evolved into alternative social spaces that influence how children learn, interact, and perceive their surroundings. This shift becomes particularly concerning as children increasingly spend more time in virtual environments than engaging in real-world social interactions. In this context, it is critical to examine how children's involvement in online gaming affects their social development, particularly during primary school years—an essential stage for building character and interpersonal skills.

Previous studies have highlighted the dual nature of online games. On the one hand, some games can enhance critical thinking, problem-solving abilities, and teamwork—especially those based on strategic or cooperative gameplay (Granic et al., 2014; Adachi & Willoughby, 2013). On the other hand, excessive involvement in online gaming may lead to negative outcomes, especially in social-emotional domains. For instance, Anderson and Dill (2000) found that high gaming frequency is associated with increased aggressive behavior, while Kuss and Griffiths (2012) emphasized the risk of game addiction, which can reduce empathy and hinder the development of healthy social relationships. In this sense, online games function not only as personal entertainment but also as social agents shaping children's mindsets and behaviors.

From a developmental psychology perspective, Erikson posits that elementary school-aged children are in the "industry versus inferiority" stage, where they begin to construct a social identity through cooperation, group tasks, and recognition of achievements (Papalia et al., 2009). Values such as responsibility, empathy, and conflict resolution are critical during this phase. Unfortunately, when children become overly engaged in digital games that prioritize instant rewards and competition, their acquisition of these social values may be disrupted. Denham (2007) supports this view, asserting that social skills are best cultivated through repeated, meaningful real-life interactions—not through shallow, often anonymous, digital encounters.

These concerns are further complicated in semi-urban areas like Tonggorisa, a subdistrict located in Bima Regency, West Nusa Tenggara Province. As a transitional zone between rural and urban settings, Tonggorisa presents a unique mix of traditional communal values and increasing exposure to digital modernity. Although internet access and smartphones are now common among households, schools and families are still ill-equipped to manage children's digital consumption effectively. Most schools lack formal technology policies, and parental monitoring is often hindered by limited understanding of children's online behaviors. This combination of high technological access and low digital literacy creates a high-risk environment for social disorientation due to unregulated digital media use.

Field observations and interviews with the principal of SD Inpres Tonggorisa on March 15, 2025, revealed that many students continue to bring smartphones to school and play online games during breaks, despite school regulations prohibiting gadget use. This reflects a lack of effective supervision from both school authorities and parents. Setiadi et al. (2024) note that digital literacy among educators and parents in non-urban areas remains low, making it difficult to establish effective monitoring and mentoring ecosystems. Nelish (2022) further highlights the importance of community involvement in raising awareness about the risks of digital exposure among children. Yet, to date, studies on the impact of online games on the social skills of elementary students in semi-urban regions remain limited. Most research is concentrated in urban areas with better educational infrastructure, offering little insight into the socio-cultural dynamics of places like Tonggorisa. This underscores the need for localized studies that integrate quantitative analysis with an emphasis on socio-cultural and institutional variables.

Against this backdrop, the present study aims to empirically examine the impact of online gaming intensity on the social skills of fourth-grade students at SD Inpres Tonggorisa. Beyond establishing a statistical relationship between the two variables, this research seeks to highlight how children's social abilities are shaped by the interplay between digital engagement and their immediate social environment. The findings are expected to inform adaptive educational and parenting strategies that respond to the challenges of digitalization, while also reinforcing the importance of community-based digital literacy and enduring social values.

B. Method

This study employed a quantitative approach using a descriptive-correlational design to investigate the relationship between online gaming intensity and the social skills of elementary students. This approach was selected for its suitability in analyzing correlations between variables through numerical data and testing hypotheses using statistical procedures. The research subjects comprised all fourth-grade students at SD Inpres Tonggorisa, totaling 30 participants selected through purposive sampling. The inclusion criteria required that students have access to digital devices, such as smartphones, and be actively engaged in online gaming as part of their daily routine. The school and class were selected based on preliminary observations and interviews with the school principal, which confirmed the presence of active online gaming behavior among students.

The primary research instrument was a questionnaire consisting of two main sections: (1) a scale measuring the frequency and duration of online game use, and (2) a social skills scale based on indicators from the Social Skills Rating System (SSRS), developed by Gresham and Elliott (1990). The social skill indicators assessed included cooperation, self-control, responsibility, and patience. To ensure the validity of the instrument, expert judgment was conducted involving university lecturers specializing in education and developmental psychology. Instrument reliability was assessed using Cronbach's Alpha, yielding a coefficient of 0.668 for the online gaming variable (X) and 0.740 for the social skills variable (Y), indicating acceptable internal consistency for both scales.

Data collection was carried out by distributing the questionnaire to all participants. To ensure accuracy and clarity, the questionnaires were completed under the direct supervision of the researcher. The collected data were analyzed using descriptive statistics to portray the overall distribution of student responses. In addition, Pearson correlation and simple linear regression analyses were employed to examine the strength and direction of the relationship between the independent variable (online gaming intensity) and the dependent variable (social skills). The study design and procedure were constructed to directly address the research problem outlined in the introduction— specifically, how online gaming involvement affects children's social skill development within the context of a semi-urban area where digital literacy remains limited.

C. Results and Discussion

This study aimed to evaluate the impact of online gaming intensity on the social skills of fourth-grade students at SD Inpres Tonggorisa. Data were collected from 30 students who met the inclusion criteria—having access to digital devices and engaging in online gaming as part of their daily routines. The questionnaire consisted of two key components: a scale measuring gaming intensity and another assessing social skills based on the framework of Gresham and Elliott (1990).

1. Result

Relationship Between Online Gaming Intensity and Social Skills

To determine the nature of the relationship between gaming frequency and social skill levels, a simple linear regression analysis was conducted. The analysis showed a statistically significant negative correlation between the two variables. The regression coefficient (B = -0.140) suggested that an increase in gaming intensity is associated with a decrease in social skills.

Table 1. Simple Linear Regression Test

Model	B	Std. Error	t-value	Sig.
Constant	13.844	0.450	30.741	0.000
Online Gaming (X)	-0.140	0.025	-5.588	0.000

The obtained t-value (-5.588) was greater in absolute terms than the critical value (2.042), and the significance level (0.000) was far below the 0.05 threshold. These findings confirmed that the negative correlation between online gaming and social skills was statistically significant. To further support the model's validity, an F-test was conducted to evaluate the overall significance of the regression equation. The results are presented below:

Table 2. F-Test Summary

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.110	1	4.110	31.226	0.000
Residual	3.685	28	0.132		
Total	7.795	29			

The F-value of 31.226 and the significance level of 0.000 indicated that the regression model has strong predictive ability, suggesting that online gaming frequency significantly contributes to changes in students' social skill levels.

Descriptive Trends and Instrument Reliability

Descriptive analysis revealed that students who played online games more than five times a week scored noticeably lower in several social skill dimensions, particularly

cooperation, patience, and self-control. Some students reported spending over one hour daily on games, mainly those in the competitive or adventure genres. This indicates that gaming has become a dominant part of their routines, often replacing opportunities for direct peer interaction. Field observations conducted on March 15, 2025, found that some students continued to bring and use their smartphones during school breaks despite school policies prohibiting gadget use. This suggests that both parental and school supervision remain insufficient, allowing children to access digital media without proper regulation. Instrument reliability was tested using Cronbach's Alpha, with results of 0.668 for the online gaming scale and 0.740 for the social skills scale. These values indicate acceptable internal consistency, supporting the use of both scales for measuring behavioral and social indicators among elementary school-aged children.

D. Discussion

The findings of this study clearly show a significant negative relationship between the intensity of online gaming and the social skills of fourth-grade students at SD Inpres Tonggorisa. Students who spent more time playing online games tended to score lower in key social competencies such as cooperation, emotional regulation, and interpersonal communication. This pattern reflects not only individual behavioral tendencies but also broader shifts in the structure of childhood socialization in the digital age. The results reinforce Erikson's psychosocial theory, particularly the "industry versus inferiority" stage, which suggests that elementary school years are critical for developing a sense of competence through social interaction and collaborative activities (Papalia et al., 2009). However, online games—especially those that are highly competitive and individualistic—appear to limit children's engagement in real-life social experiences, thereby weakening their ability to build empathy, respond appropriately to social cues, and manage conflicts constructively (Denham, 2007; Sharma et al., 2016).

Observational data also support this trend: many students were seen prioritizing game play over peer interaction during school breaks, despite clear restrictions on device use. This indicates that digital interaction is increasingly replacing direct social engagement, which is essential for developing foundational social behaviors such as turn-taking, emotional control, and teamwork (McClelland et al., 2006; Saputra, 2024). From a theoretical standpoint, these findings align with more critical perspectives on digital gaming. Anderson and Dill (2000) associated frequent gaming with increased aggression and reduced empathy, while Kuss and Griffiths (2012) identified psychological risks such as emotional detachment and social withdrawal. On the contrary, studies suggesting positive cognitive or social outcomes from gaming (Granic et al., 2014; Adachi & Willoughby, 2013) were not reflected in this case. This suggests that any benefits of gaming may be highly context-dependent, influenced by game type, social environment, and the presence or absence of adult guidance.

One of the study's original contributions lies in its focus on a semi-urban context. In Tonggorisa, access to digital technology is rising, but digital literacy among teachers and parents remains low (Setiadi et al., 2024; Nelish, 2022). As a result, children's digital

engagement is largely unregulated and often disconnected from educational or developmental goals. Online games, in this context, serve as unmonitored social agents—often in contradiction to the values promoted in formal education. However, this study also acknowledges its limitations. As a correlational design, it does not establish causality, and other factors such as family communication patterns, personality traits, or the nature of games played may also influence outcomes. Further research using qualitative or longitudinal designs is recommended to uncover the deeper mechanisms behind these relationships.

The implications of these findings extend to three levels: school, family, and public policy. Schools should move beyond prohibitive approaches and develop preventive and educative strategies that promote healthy digital habits through character education and digital literacy. Teachers need training to recognize and respond to digital behavior empathetically. At the family level, parents must be involved not only as supervisors but also as digital companions who engage children in discussions about gaming habits and social consequences. At the policy level, national digital literacy programs are urgently needed—not only for children, but for the entire ecosystem of education and parenting. Such programs should address technical, ethical, emotional, and social aspects of digital engagement to cultivate well-rounded digital citizens. Ultimately, this study highlights a fundamental tension between two spheres of childhood socialization: the physical and the digital. Bridging this divide is essential to raising a generation that is not only tech-savvy but also socially and emotionally competent.

E. Conclusion

This study concludes that online gaming intensity has a significant negative effect on the social skills of elementary school students. Those who engage in online gaming more frequently tend to show lower levels of cooperation, self-control, and interpersonal communication. These findings suggest that excessive involvement in digital activities can disrupt children's social development, especially in environments where technology supervision is weak or underdeveloped. Theoretically, this research strengthens Erikson's psychosocial framework by demonstrating how digital environments influence the development of social competence. Empirically, it contributes to the growing body of literature by offering insight into the challenges of digital engagement in semi-urban contexts—areas often overlooked in mainstream discussions of digitalization and education.

The practical implications of this study emphasize the need for context-sensitive digital literacy and character education. Both schools and families must work collaboratively to create a healthy digital culture for children. Teachers and parents should receive focused training not only to supervise but also to guide and mentor children in their digital interactions. Such interventions should be grounded in empathy, not control. However, the study also recognizes its limitations. The use of a correlational design and a sample limited to a single school restricts the generalizability of the findings. Future research should consider qualitative methods to explore the social mechanisms behind

the observed patterns and design community-based digital literacy interventions to evaluate their effectiveness. Ultimately, maintaining children's social skills in the digital age is not merely a matter of limiting access to technology—it is about reconfiguring the educational and caregiving ecosystem to align with sustainable social values. Building this balance between digital fluency and social empathy is essential for raising a generation that thrives both online and offline.

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