

## Digital Dilemma: The Cognitive Impact of Social Media on Early Childhood in Rural Communities

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### Abstract

The use of social media among early childhood populations has increased significantly, including in rural communities, in line with technological advancements and growing internet accessibility. This study analyzes the impact of social media on early childhood development using a qualitative-descriptive approach through observation and interviews, and is interpreted through Albert Bandura's social learning theory. The primary focus of this research is to explore how social media influences the cognitive aspects and socialization processes of children in rural settings, particularly in Lekor Village, Janapria District, Central Lombok Regency. The findings reveal a dualistic influence of social media. On the one hand, social media functions as an informal learning tool that enhances children's early cognitive abilities, encourages them to stay indoors, and provides both entertainment and educational content that supports the development of verbal memory. In settings where peer interaction is limited, social media often serves as a substitute for social companionship. On the other hand, social media has emerged as a new agent of socialization that carries significant risks. Young children tend to imitate behaviors portrayed in digital content that may not align with local cultural values. Negative effects identified include poor communication skills, impulsive behavior, disrupted sleep and eating patterns, anxiety, materialistic tendencies, and exposure to inappropriate content. This study underscores the urgent need for community-based digital literacy initiatives and active supervision by parents and local authorities to ensure that social media functions as an educational resource rather than a source of developmental dysfunction in early childhood.

**Keywords:** *Social Media; Young Children; Digital Disruption; Social Learning*



## Introduction

Information technology in Indonesia is currently developing rapidly, enabling access to information through various social media platforms with increasing ease. One of the most widely used technological advancements is the smartphone, which functions much like a computer and is equipped with a sophisticated operating system (Daulay et al., 2020). Smartphones allow users to stay connected without boundaries, offering a range of features that facilitate communication (Lutfi et al., 2021). For the majority of users, this technology brings numerous benefits, such as easier access to information, improved long-distance communication, support for learning processes, and the expansion of social networks. However, social media use has undergone a demographic shift; it is no longer limited to adults, but now includes early childhood users. Given its significant advantages, it is unsurprising that social media has become a basic communication need. Access to communication media is no longer difficult, making it accessible to all segments of society, including adolescents and even young children.

One of the most significant changes brought about by this technological evolution is the rise of social media platforms such as TikTok, Facebook, Instagram, Twitter, and others. As technology and internet access become increasingly widespread, the use of social media among children and adolescents has grown rapidly. Data shows that many children in Indonesia are exposed to social media before reaching the recommended minimum age of 13. Approximately 87% of children have encountered social media before this age threshold (mediaindonesia.com, 2021). Nonetheless, social media usage does not only bring positive impacts; it also poses significant risks, especially for children who are highly impressionable and curious. As a result, children and adolescents may gain access to harmful or age-inappropriate content, which in turn may lead to negative consequences such as declining academic performance (Susanti & Supriyadi, 2023). It is undeniable that children and adolescents are among the most vulnerable groups affected by the negative influence of social media, raising serious concerns about its potential impact on early childhood development.

Previous studies on the effects of social media tend to be more comparative and literature-driven in nature (Suryaningsih, 2020; Pratidina et al., 2023), often focusing on specific platforms such as TikTok (Bakistuta et al., 2023; Zaputri, 2021). By contrast, the present study adopts a broader and more descriptive approach, aiming to capture the general phenomenon of social media's impact on early childhood – both positive and negative – within the context of daily life and social interaction.

First, existing research has explored the impact of social media on children's social behavior (Zubir & Yuhafliza, 2019; Susanti & Supriyadi, 2023). The use of social media and digital communication technologies must be regulated to prevent harm to individuals, communities, and the nation, while also ensuring users have foundational knowledge of responsible usage. While social media may offer positive effects – such as serving as a source of inspiration, enabling children to express themselves, dance, move, and access educational content that motivates learning, it also brings significant risks. For example, the use of TikTok among early childhood users has been associated with reduced motivation to study, irritability, disobedience, and exposure to inappropriate content (Rifqi et al., 2023). These outcomes are often driven by symptoms of addiction to TikTok or internet use more broadly. In this context, the role of the government is crucial, as it holds the authority to implement regulatory limitations. However, the responsibility does not rest solely on the government. Parents and other close figures in the child's environment must also actively monitor and guide the younger generation to ensure safe and meaningful engagement with digital media.

Secondly, studies on the impact of social media on children's social problems (Renindita & Suherman, 2024; Cahyono, 2018; Putri, 2024) have highlighted various negative consequences. These include developmental delays, health issues, increased risks of criminal behavior and cyberbullying, impaired language skills, exposure to pornography, poor communication, emotional and physical developmental disturbances, oversharing of personal information, sleep disorders, and other social problems (Rifqi et al., 2023). Children's addiction to smartphones often stems from their inability to manage screen time effectively. The ease of access to various forms of

digital information has led to sedentary behavior, a tendency toward individualism, and heightened dependence on evolving mobile technology.

Educators, particularly teachers, play a vital role in mitigating the negative impacts of social media by implementing classroom bans on smartphones (Yasin & Jannah, 2022). Parents can establish clear limits on when and how much time their children may spend on social media. Policymakers may intervene through legislation and public outreach, while communities can work collaboratively to foster safer and healthier environments for children and adolescents. These measures represent a crucial starting point for reducing the adverse effects of social media on minors.

Despite the aforementioned risks, it is important to acknowledge that social media also presents certain benefits for young children. For instance, it can keep children indoors and away from potentially dangerous environments or excessive snacking habits. Nevertheless, concerns arise when social media is accessed by children who are still in the early stages of cognitive and emotional development, making them particularly vulnerable to negative influences. Such impacts include poor communication, behavioral changes, sleep and appetite disturbances, psychological distress, increased consumerist tendencies, screen addiction, and social disengagement (Nuraida, 2023). Moreover, exposure to age-inappropriate content, including pornography, poses a serious risk.

In today's digital era, it is common for young children to own smartphones and regularly access platforms such as TikTok late into the night. Their constant exposure has normalized the use of media in nearly all daily routines, including mealtimes and bedtime. The proliferation of social media usage among early childhood populations frequently occurs without adequate parental supervision, and is further exacerbated by a lack of understanding regarding healthy screen time limits. The central problem identified in this study is the lack of parental control and the absence of time management strategies for children's media use. However, when used wisely and under proper supervision, social media can also serve as a fun and interactive learning tool (Dwistia, 2022). Therefore, it is essential to examine more deeply how social media affects early childhood development—both positively and negatively. Through this

study, it is hoped that a more comprehensive understanding will be developed, serving as a foundation for formulating targeted strategies for supervision, digital education, and policy interventions aimed at protecting children in the digital age.

## Method

This study employs a qualitative research approach to gain an in-depth understanding of the impact of social media on early childhood in Lektor Village, Janapria District, Central Lombok Regency. This approach enables the researcher to explore the characteristics of young children affected—both positively and negatively—by social media, as well as to capture parental perspectives within this specific context. According to Creswell (2014), qualitative research is highly effective for exploring complex social phenomena, such as the influence of social media on early childhood development. Using a descriptive method, the researcher presents detailed and relevant data that allow readers to comprehend the broader context of the phenomenon under investigation (Babbie, 2010).

The research site was selected based on areas where the impact of social media on young children is more apparent. Lektor Village in Janapria District was chosen as the field site because it has a significant number of early childhood users exposed to the effects of social media. Additionally, the location offered sufficient accessibility for conducting interviews and observations. Selecting a strategically relevant site allows the researcher to obtain more representative data on the social media-related effects experienced by children.

Interviews were employed as a primary data collection technique. The researcher conducted unstructured interviews with parents of young children and community members who are caretakers. The purpose of these interviews was to gather insights into parents' experiences in protecting their children from the negative influences of social media. As noted by Kvale (2007), interviews are an effective method for understanding individual perspectives and for obtaining in-depth insights into social phenomena. Observation was also conducted to gain a better understanding of how social media affects early childhood development. The researcher observed how parents supervise their children, especially in situations

where children exhibit signs of social media addiction. Observations included both behavioral patterns and environmental factors surrounding early childhood. By combining observation and interviews, the researcher was able to collect data that is more comprehensive and contextual (Patton, 2002).

The collected data were analyzed using Albert Bandura's social learning theory. This theoretical framework was adopted to explore the core of the issue from an academic perspective. Bandura's theory posits that human behavior is learned through observation of one's environment, particularly through the modeling of others' behaviors. In the context of social media, young children are especially vulnerable, as they are in a developmental stage where cognitive processes related to identity, values, and social norms are still in formation.

## **Discussion**

### **Social Media and Village Communities**

The use of social media among early childhood populations in rural communities demonstrates a significant influence on their cognitive development, both in positive and negative aspects (Fitri, 2017). On the positive side, social media functions as a tool for social control and informal education within rural family contexts. For instance, many parents in Desa Lekor deliberately provide their young children with access to social media via mobile devices to ensure they remain indoors and are protected from external hazards. Rather than playing in the rice fields or other potentially dangerous environments, children tend to stay at home, which is perceived as a safer space by their parents. In addition, social media serves as a platform for informal educational exposure. Young children who routinely access educational videos, such as alphabet songs or number rhymes demonstrate improved verbal knowledge, even if they have not yet developed full visual recognition of letters and numbers. This indicates a positive influence on early memory formation and linguistic skills through repetition and audiovisual stimuli (Basirat et al., 2018).

Furthermore, social media frequently acts as a "digital companion" for children who lack access to peers for play. These children often feel sufficiently entertained by the content they watch, thereby reducing their desire for social interaction outside the

home. This phenomenon reflects that social media is not only a tool of entertainment but also functions as a substitute medium for socialization (Rehm & Jensen, 2015). However, on the other hand, the unsupervised use of social media also generates significant negative effects. One major finding is the decline in children's communication skills. Children who are heavily exposed to social media tend to experience delays in social abilities—such as difficulty engaging with unfamiliar individuals or extended family members—and exhibit a preference for silence or communication exclusively with parents. This illustrates a reduction in social engagement and increasing interpersonal isolation.

Moreover, marked behavioral changes have been observed, such as heightened anger, tantrums, and aggressive behaviors when desires are not fulfilled—often triggered by addiction to media content. Children become more emotionally volatile and exhibit impulsive behaviors, including throwing objects in frustration. Subsequent effects include sleep disturbances and disrupted eating patterns. Children accustomed to watching media before bedtime struggle to fall asleep without specific content, and they lose sensitivity to hunger, often refusing to eat unless accompanied by visual media—demonstrating cognitive dependency on external visual stimuli. At a deeper level, early childhood subjects may show signs of mild mental health disturbances, such as anxiety or fear, triggered by exposure to frightening content. In several instances, children reported nightmares after watching videos featuring unsettling characters such as clowns or heavily filtered, distorted faces (Sukatin et al., 2020).

Another concerning aspect is children's intense desire to own whatever they see on social media. Content showcasing toys, food, or luxurious lifestyles fosters unrealistic expectations among young viewers who are cognitively unable to distinguish between digital fiction and reality. These children often whine or cry when their requests are not fulfilled, indicating the internalization of consumerist models of behavior. Most seriously, children are at risk of exposure to inappropriate content, including pornography and violence. Even when children do not fully comprehend such content, repeated visual exposure can affect their perceptions and behavioral orientations in the future (Flood, 2009; Kumar, 2016).

An analysis based on Albert Bandura's Social Learning Theory demonstrates that all phases of behavioral formation—attention, retention, reproduction, and motivation—are clearly observable in the patterns of social media consumption among young children (Bandura, 1977). Children are not merely passive viewers; they are active learners who observe and imitate the behaviors they see. Consequently, supervision, regulation, and digital literacy education are essential in mitigating these negative impacts, while still harnessing the potential positive outcomes of social media for cognitive development.

### **Strengthening Cognitive Aspects and Early Literacy in Young Children**

This study reveals that social media exerts an ambivalent impact on the cognitive development of early childhood in rural environments (Davis, 2012). This ambivalence can be read in two directions: on one hand, social media introduces new opportunities for informal learning processes, while on the other, it can become a channel for accelerating the reproduction of negative behaviors if not accompanied by adequate social control. In a positive light, social media has transformed into an effective medium for non-formal education among young children. The finding that children can articulate the alphabet, numbers, or even Islamic readings such as *hijaiyah* letters reflects the realization of the *retention* stage in Bandura's Social Learning Theory (Bandura, 1977). This process indicates that although children may not fully recognize the visual forms of what they articulate, their verbal and auditory memory is already shaped through repeated stimuli. This is significant, as during early developmental stages, the verbal-auditory dimension often serves as the primary entry point for the formation of cognitive schemas (Iswantun, 2022).

Social media also provides a contemplative and exploratory space for children to discover the outside world, especially for those with limited access to early childhood education such as PAUD (Pendidikan Anak Usia Dini). In this context, social media acts as a *model*—in Bandura's terms—that offers behavioral and expressive forms that children can imitate. Educational videos, learning songs, or content showcasing learning activities serve as model stimuli that reinforce the child's internal motivation to learn letters, numbers, and basic social activities. However, this



learning process tends to be imitative rather than representational, children mimic sounds or patterns without constructing deep understanding. This phenomenon warrants concern as it may create a discrepancy between verbal abilities and visual literacy, which in the long run could affect readiness for formal education (Tatone, 2016).

### **Social Media as a New Agent of Socialization**

The fact that early childhood subjects are content to engage with social media without seeking direct social interaction marks a paradigmatic shift in children's socialization processes. In traditional societies, childhood socialization occurred through physical interaction with peers, extended family, or the broader community. In contrast, in today's context, social media acts as a social substitute, creating virtual relationships between children and the external world. This alters the way children learn norms, language, and emotional expression (Alyusi, 2019).

According to Bandura, behavior is learned not only from individuals with whom one directly interacts but also from *symbolic models*, namely characters or figures portrayed in media (Bandura, 1986). This implies that young children can imitate speech patterns, facial expressions, and interactional styles observed on social media, which may not always align with local values. Over time, this can foster patterns of individualistic behavior, diminished social empathy, and weakened interpersonal communication.

One of the key findings of this study is the emergence of behavioral tendencies among children characterized by impulsivity, irritability, and reduced responsiveness to parental instruction. Within Bandura's framework, such aggressive behaviors often arise from observing aggressive models, whether verbal or non-verbal (Bandura, 1986). Social media content that displays symbolic violence, harsh language, or exaggerated emotional expressions becomes a reference point for children in responding to real-world situations. This is problematic because young children's emotional regulation functions are not yet neurologically mature.

Moreover, the phenomenon of screen addiction triggers various secondary disorders such as sleep disturbances, irregular eating habits, and social withdrawal.

Children continuously exposed to social media show reduced ability to perform basic routines independently, for example, needing media to fall asleep or to eat. This indicates that social media has not only become a source of distraction but has also formed a kind of structural dependency in children's daily behavior. This dependency has the potential to lead to long-term cognitive impairments such as diminished concentration, heightened impulsivity, and learning disorders (Bozzola et al., 2022).

Through algorithmic filtering, social media also intensifies the visualization of consumerist and glamorous lifestyles. Children – who lack mature cognitive filters – tend to perceive content as a reality that must be attained. This aligns with the *motivational* process in Bandura's theory, where behaviors are imitated in anticipation of a reward or social approval (Bandura, 1977). In this context, children emulate what they observe on social media because they believe it will result in praise or recognition, whether from parents or peers. Demands for toys, certain foods, or experiences they see online generate psychological and economic pressures for families and shape consumerist tendencies from an early age.

## Conclusion

The findings of this research emphasize the crucial role of parents, educators, and policymakers in responding to these changes. Community-based digital education policies are necessary – emphasizing media literacy, screen-time limitations, and content supervision. Beyond this, governments and village-based educational institutions should reinforce the functions of playgrounds, early childhood education centers (PAUD), and public spaces for children as meaningful alternatives for socialization.

Integrating social media into early childhood education curricula with appropriate pedagogical approaches may serve as a medium-term solution. For instance, the development of local, culturally grounded educational content could serve as counter-content to the dominance of external, contextually inappropriate media. This approach aligns with the core principles of Bandura's Social Learning Theory, which emphasizes the decisive role of model quality in shaping learning outcomes in children.

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