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Teacher Strategies in Developing Students' Self-Control in the Digital Era: A Phenomenological Study in Elementary School

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Abstract

This study aims to identify and analyze the strategies employed by elementary school teachers in fostering student self-control amidst the challenges of the digital era. Using a qualitative phenomenological approach, in-depth interviews and participatory observations were conducted with six teachers from SDN 4 Tangerang City. The findings reveal five core strategies: (1) cultivating positive daily habits, (2) teacher modeling of disciplined behavior, (3) facilitating active discussion and self-reflection, (4) providing wise and contextual guidance, and (5) integrating digital literacy into classroom instruction. These strategies effectively help students manage digital distractions, enhance awareness of gadget usage, and strengthen self-regulation. The study also highlights the critical role of school–parent collaboration in reinforcing consistent behavioral expectations. This research contributes to the literature on character education by positioning teachers as key facilitators who bridge digital competence and self-control development. The findings offer practical insights for educators, schools, and policymakers in designing responsive programs that nurture self-control as a foundational 21st-century skill.

Keywords: digital era, digital literacy, elementary education, self-control, teacher strategies

1 INTRODUCTION (11pt)

The rapid advancement of digital technology has profoundly reshaped learning environments and social interactions, particularly among elementary school students. In Indonesia, 9.17% of internet users are children under 12 years old (Komdigi, 2025), and nearly half of all internet users are under 18 (APJII, 2024). In urban centers like Tangerang City, where digital penetration reaches 87.79% (BPS Kota Tangerang, 2024), students are immersed in digital ecosystems from an early age, with platforms like TikTok becoming integral to their daily lives. While digital tools offer unprecedented access to information and interactive learning, they also pose significant challenges to students' ability to regulate attention, behavior, and screen time (Hermawan et al., 2023; Susanto, 2023). In this context, self-control the capacity to manage impulses and align behavior with long-term goals has become a critical competency for academic success and healthy social development (Baumeister & Tierney, 2002; Duckworth, 2016).

According to Bandura's (1977) social learning theory, students develop self-regulatory behaviors largely through observation and imitation of significant role models, especially teachers. However, in the digital era, this role is further complicated by the need to mediate students' interactions with technology. Bronfenbrenner's (1979) ecological systems theory provides a crucial lens for understanding this complexity: child development is shaped not only by the microsystem of the classroom but also by the mesosystem linking school and family, the exosystem of educational policy, and the

macrosystem of digital culture. Without alignment between these systems particularly between school and home efforts to build self-control are easily undermined.

Digital literacy, defined as the ability to access, evaluate, create, and communicate information responsibly in digital environments (Fraillon & Rožman, 2023), must therefore be integrated into character education. The IEA's Computer and Information Literacy (CIL) framework emphasizes that digital literacy encompasses more than technical skills it includes managing information, ethical communication, and critical evaluation (IEA, 2024). Yet, Indonesia's National Digital Literacy Index remains at only 3.54 out of 5 (Kemendikbudristek & Kemenkopmk, 2022), indicating significant gaps in critical thinking and digital ethics among elementary students.

This study addresses this gap by investigating the lived experiences of elementary school teachers at SDN 4 Tangerang City as they navigate the dual role of disciplinarian and digital mentor. It responds directly to the ICE 2025 theme "Innovation and Transformation of Education in the Digital Era" by highlighting teacher-led innovations that bridge digital competence and self-control development. The research focuses specifically on the strategies teachers employ to foster student self-control amidst digital distractions, offering practical insights for educators, schools, and policymakers in designing responsive programs that nurture self-control as a foundational 21st-century skill.

2 RESEARCH METHODS

This study employed a qualitative phenomenological approach to explore the lived experiences of elementary school teachers in fostering student self-control in the digital era. The research was conducted at SDN 4 Tangerang City, Indonesia a context characterized by high digital penetration (87.79%, BPS Kota Tangerang, 2024), making it a representative site for examining the intersection of digital culture and pedagogical practice.

Six teachers were selected as participants through purposive sampling. All had at least five years of teaching experience in upper-grade elementary classes (Grades IV–VI) and demonstrated active engagement in guiding students' digital behavior. This selection aligns with Bronfenbrenner's (1979) ecological systems theory, which emphasizes that child development is shaped by interactions between microsystems (e.g., classroom) and mesosystems (e.g., school, family collaboration). Teachers in this context serve as key mediators between students' digital lives and formal education.

Data were collected through three primary methods:

1) Semi-structured in-depth interviews,
2) Participatory classroom observations, and
3)Document analysis of lesson plans, counseling records, and school policies on digital device usage.

Interviews lasted 30–60 minutes and were conducted in comfortable settings (e.g., teacher's lounge, empty classrooms) to encourage reflective and honest responses. Questions focused on teachers' strategies, perceived challenges, and interpretations of students' digital literacy and social behavior in the context of TikTok use. All interviews were audio-recorded (with consent) and transcribed verbatim. Observations were carried out during regular class sessions to capture real-time implementation of self-control strategies, including how teachers managed gadget use, facilitated discussions on digital ethics, and modeled disciplined behavior. Document analysis provided contextual insight into institutional support (or lack thereof) for teachers' strategies, including school-level digital literacy initiatives and parental engagement protocols.

Data analysis followed thematic analysis procedures as outlined by Sari and Handayani (2020), involving transcription, open coding, and iterative theme development. To ensure trustworthiness, methodological and source triangulation were applied, and member checking was conducted with participants to validate interpretations. Ethical

approval was obtained from the school committee, and all participants provided informed consent with guaranteed anonymity.
This methodological design is consistent with the Education 4.0 paradigm, which positions teachers not as knowledge transmitters but as reflective facilitators who navigate the complexities of digital-native learners (Zawacki-Richter et al., 2019). By centering teachers' lived experiences, this study captures the nuanced, context-sensitive strategies that emerge at the intersection of pedagogy, digital culture, and child development.

3 RESULT AND DISCUSSION

3.1. Core Strategies for Fostering Student Self-Control

This study identified five core strategies employed by elementary school teachers at SDN 4 Tangerang City to foster student self-control in the digital era. First, cultivating positive daily habits through structured routines—such as screen-free morning sessions and designated gadget-free learning periods—helps students internalize discipline through repetition. For example, one teacher shared, "We begin every morning with a 5-minute mindfulness session no phones, no talking, just breathing and centering ourselves." These routines align with Baumeister and Tierney's (2002) view that self-control is a trainable capacity.
Second, teacher modeling of disciplined behavior emerged as a powerful influence.
All six teachers emphasized the importance of "walking the talk." As one participant stated, "If I'm on my phone during class, how can I expect my students to stay focused?" This practice directly reflects Bandura's (1977) social learning theory. Third, facilitating active discussion and self-reflection allows students to articulate their digital experiences, recognize behavioral consequences, and co-construct classroom norms. One teacher described a weekly "Digital Diary" activity where students reflect on their screen time and emotional responses. Fourth, providing wise and contextual guidance through personalized counseling addresses individual challenges, such as the use of vulgar language or imitation of inappropriate online content not through punishment, but through dialogue about social impact and empathy. Teachers also acknowledged that open, personal communication and positive reinforcement are more effective than reprimands. As one teacher explained, "When I notice a student copying a TikTok dance that's not appropriate, I talk privately, ask where they learned it, and help them see why it's unsuitable for school."
Fifth, integrating digital literacy into classroom instruction transforms technology
from a distraction into a learning tool. Teachers design tasks that require students to fact-check online claims, analyze the credibility of sources, and create ethical digital content. Notably, several teachers reported that students become more enthusiastic and interactive when gadgets are integrated into lessons under strict rules, demonstrating that technology, when guided, can enhance engagement rather than diminish it.

3.2. Emerging Challenges: Behavioral, Social, and Health Impacts

Despite these strategies, teachers reported significant challenges directly linked to students' digital consumption, particularly through TikTok and other social media platforms. Behavioral issues included imitation of destructive content such as cyberbullying, vulgar speech, and mocking gestures. Teachers observed that some students mimicked disrespectful behaviors seen online, using sarcastic or aggressive tones toward peers. In several cases, this imitation escalated into minor bullying incidents. Such findings align with Bandura's (1977) notion that modeling can lead to both prosocial and antisocial learning, depending on the observed behavior.
Social interaction problems also emerged. Teachers noticed a tendency for students
to form friendship groups based solely on shared digital interests, such as favorite influencers, games, or sports celebrities while excluding peers who did not share these preferences. One teacher remarked, "They only talk to classmates who follow the same

YouTubers or TikTok stars. Others are left out." This behavior reflects a form of digital tribalism, where online identity markers shape real-world social inclusion.
Health impacts were also evident. Teachers frequently observed symptoms of digital eye strain, such as frequent eye rubbing, headaches, and difficulty focusing during reading activities. These complaints were often linked to late-night screen exposure, confirming prior findings on physical strain among elementary students with high gadget use (Hermawan et al., 2023). These findings highlight that digital exposure affects not only students' attention spans but also their behavioral norms, social belonging, and physical well-being—making the teacher's role in regulating and guiding digital engagement even more crucial.

3.3. Collaborative and Pedagogical Responses

To mitigate these challenges, teachers and the school implemented a combination of preventive and responsive strategies emphasizing collaboration and digital awareness. At the institutional level, the school organizes parenting workshops and seminars every semester, focusing on digital literacy, healthy screen time, and the psychological effects of excessive gadget use. These sessions aim to align home and school expectations, consistent with Bronfenbrenner's (1979) ecological systems theory.
At the classroom level, teachers maintain continuous communication with parents through WhatsApp groups and during school meetings, reminding them to monitor students' online behavior and encouraging consistent discipline at home. This ongoing dialogue ensures that guidance at school is reinforced in the family environment. Teachers also adopt a personalized, empathetic approach when responding to inappropriate student behavior. Instead of public reprimands, they engage students in reflective conversations, exploring the origin of their actions and helping them rebuild self-awareness. Simultaneously, teachers reward positive examples of responsible gadget use applauding students who show maturity in managing screen time or helping friends make wiser online choices.
Importantly, some teachers intentionally integrate gadgets into learning activities under strict supervision. When used for research or digital storytelling, students show improved motivation and collaboration. This approach demonstrates that controlled digital inclusion can serve as a form of guided digital literacy, reinforcing Baumeister's (2007) model of self-control through structured autonomy.

3.4. Theoretical and Practical Implications

These findings affirm that fostering self-control in the digital era requires balancing restriction with empowerment. Teachers act as mediators between digital culture and character education, shaping how students internalize discipline and social ethics in online contexts. The strategies observed structured routines, role modeling, reflective dialogue, contextual counseling, and guided gadget integration, reflect the Education 4.0 paradigm (Zawacki-Richter et al., 2019), positioning teachers as adaptive facilitators rather than traditional authority figures.
Practically, the school's collaboration with parents through workshops and WhatsApp communication shows that sustainable digital discipline depends on consistent guidance across both settings. Furthermore, acknowledging and addressing behavioral imitation, social fragmentation, and health concerns emphasize the importance of holistic intervention. The data indicate that self-control cannot be cultivated in isolation but requires synchronized efforts across the school ecosystem—teachers, parents, and students.
In conclusion, these results provide a comprehensive picture of how elementary teachers navigate digital-era challenges through empathy, reflection, and structured engagement. By combining discipline with understanding, and technology with ethics, teachers are not merely managing digital behavior but reshaping how students learn to be responsible digital citizens.

3 CONCLUSION

This study confirms that the development of self-control in students in the digital age requires a holistic, responsive, and collaborative approach that integrates pedagogical strategies, behavioral modeling, critical reflection, and digital literacy. The five main strategies identified encouraging positive activities, teacher role modeling, active discussion and self-reflection, providing wise advice, and integrating digital literacy into learning are not separate tactics, but rather interrelated practices that dynamically respond to the digital reality of students in Tangerang City, where technology penetration reaches 87.79% (BPS Kota Tangerang, 2024).

Crucial findings show that the challenges faced by teachers are far more complex than mere screen distractions. Students now imitate destructive behaviors such as digital bullying, use of foul language, and age-inappropriate dances from TikTok content. They also limit their circle of friends to those who share the same interests in certain artists, games, or sports a form of algorithm-based social segregation. In addition, eye health problems due to excessive screen exposure are a common complaint that interferes with the learning process. These findings reinforce the urgency of interventions that are not only disciplinary, but also educational and emotional.

Most notably, this study reveals that the effectiveness of teachers' strategies is highly dependent on systemic collaboration. Schools actively organize parenting workshops every semester to align parents' understanding of the dangers of excessive gadget use. Teachers also communicate intensively through WhatsApp groups, providing tips, warning about dangerous content trends, and appreciating students who use social media wisely. This approach which is open, personal, and appreciative builds trust, not fear, so that students are more open in reflecting on the impact of their digital behavior.

Furthermore, this study shows that technology does not have to be rejected, as long as it is integrated with strict rules and clear pedagogical objectives. When teachers allow the use of gadgets in learning for example, for research, digital presentations, or interactive quizzes students show greater enthusiasm, focus, and collaboration. This proves that restrictions without empowerment are not enough; students need to be guided to use technology responsibly, critically, and creatively.

Theoretically, these findings enrich self-control theory (Baumeister et al., 2007) by showing that this capacity is not only trained through internal discipline but also through a guided digital environment. The role of teachers as mediators, mentors, and guardians of values becomes central in bridging the virtual world and moral values. This approach is in line with the principles of Bronfenbrenner's ecological theory (1979), where consistency between microsystems (school and family) determines the success of character formation.

In practical terms, this study recommends: (1) The development of structured digital literacy modules that include ethics, critical evaluation, and responsible creation, (2) Teacher training in digital classroom management and literacy-based counseling approaches, (3) Strengthening of ongoing school-parent communication protocols, not only when problems arise.

In conclusion, the elementary teacher in the digital era is far more than an instructor. They are mediators, mentors, and moral guides who navigate the complex interplay between digital culture, child development, and character education. By embedding self- control within a framework of critical digital literacy (Fraillon & Rožman, 2023) and fostering tripartite collaboration among school, family, and community, educators can empower students not only to manage screen time but to become ethical, reflective, and resilient digital citizens in the age of Education 4.0.

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