



Promoting Digital Well-Being Through English Graffiti Art: A Case Study of Junior High School Students

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Article Info	Abstract
Received: 2026-06-02 Revised: 2026-06-12 Accepted: 2026-06-16 Keywords: Digital healthy habits; Digital Well-being; English; Graffiti DOI: 10.24256/ideas.v14i1.10991 Corresponding Author: Widia Fransiska widia.fransiska93@gmail.com Universitas Alwashliyah Medan	<i>Unhealthy digital habits among junior high school students, including excessive gaming and prolonged social media use, have raised concerns about their impact on creativity, focus, and real-world interaction. Most studies on digital well-being have focused on university students, adults, and employees, with little attention to adolescents, particularly junior high school students who represent the generation growing up with technology since birth. This study addresses that gap by investigating the role of English graffiti art as an innovative pedagogical approach to promote digital well-being among adolescents at a private junior high school in Medan. Employing a mixed-method case study design, the research involved three classes of seventh-grade students (74 participants in total). Data collection included a preliminary survey (14 respondents), classroom observations, student-created graffiti artifacts, reflective journals, and interviews with 14 students and teachers. Quantitative survey data were analyzed descriptively to identify awareness of healthy digital habits, while qualitative data were examined thematically to capture recurring patterns of awareness, self-control, creativity, and peer influence. Results revealed that although students recognized the importance of balancing online and offline activities, many struggled with responsible screen-time management. The graffiti art intervention provided a culturally resonant medium for students to articulate reflections on their digital habits, with outputs such as "Sleep Well, Live Well", "Scroll Less, Smile More", and "Use</i>

Tech Wisely” demonstrating both linguistic learning and behavioral awareness. Classroom observations showed increased engagement and collaboration, while interviews highlighted the role of peer influence in motivating students to reconsider their digital practices. This study contributes to adolescent digital well-being research by demonstrating how arts-based pedagogy can bridge the gap between awareness and practice. Its novelty lies in combining language education, creative pedagogy, and digital literacy to address adolescent digital well-being, offering a meaningful contribution to both educational practice and scholarly discourse.

1. Introduction

The rapid growth of technology use, accelerated by the COVID-19 pandemic, has reshaped the daily lives of young people. Adolescents increasingly rely on digital entertainment such as gaming and social media (Briandana et al., 2023), often engaging in late-night “revenge bedtime procrastination” that sacrifices sleep for extended screen time (Granic et al., 2020). While millennials experienced life before smartphones, Generation Z and Alpha have grown up immersed in digital devices (Pahus & Knuth, 2023), making them particularly vulnerable to unhealthy digital habits. Although technology offers undeniable benefits for learning and communication, its misuse can negatively affect students’ focus, creativity, and well-being.

The concept of digital well-being emphasizes intentional and balanced technology use that supports mental, physical, and emotional health (Cemiloglu et al., 2025; Fransiska, 2023). Yet, despite adolescents’ familiarity with digital tools, many struggle with self-regulation, leading to fatigue, distraction, and reduced classroom engagement (Bozbiyik et al., 2025). Teachers cannot directly control students’ digital use outside school, but they can embed strategies within lessons to foster awareness and healthier practices (Gouseti et al., 2024; Sihite & Rangkuti, 2023).

Existing research has highlighted the risks of smartphone overuse among university students and adults, including sleep deprivation, attention deficits, and diminished social interaction (Alam et al., 2025; Islambouli et al., 2025). Other studies have explored coping mechanisms, such as online museum resources to support well-being (Luck & Sayer, 2024), positive education for Asian university students (Zhao & Tang, 2026), and workplace interventions for employees (Sansovini & Magida, 2025).

While these studies provide valuable insights, they remain largely descriptive and focus on older populations. Adolescents differ significantly from adults in that they are still developing self-regulation skills and are more influenced

by peer dynamics and identity formation. Few studies critically examine how creative, classroom-based interventions might help adolescents reflect on and reshape their digital practices.

This study responds to that gap by introducing graffiti art (Degand, 2022) as a pedagogical tool within English language learning (Fransiska et al., 2024). Grounded in constructivist learning theory (Piaget, 1972; Vygotsky, 1978) the intervention positions students as active co-creators of knowledge, using art to externalize reflections on digital habits.

Through experiential learning (Kolb, 1984), students engage in hands-on activities that connect personal experiences with academic content, while arts-based pedagogy (Barone & Eisner, 2012) provides a culturally resonant medium for self-expression, mindfulness, and peer collaboration. The mechanism linking art activities (Zimuto et al., 2025) to digital well-being lies in their ability to create reflective pauses, foster ownership, and encourage dialogue, thereby transforming abstract awareness into embodied practice.

This study aims to explore the role of English graffiti art in shaping healthy digital habits among junior high school students at SMP Swasta Alwashliyah 8 Medan. The research seeks to answer this question: How does the integration of English graffiti art in classroom activities shape junior high school students' digital habits? Specifically, the objectives are: (1) to examine changes in students' awareness and practices regarding technology use before and after the intervention, (2) to analyze the role of graffiti art in fostering creativity, engagement, and self-expression within English learning, and (3) to evaluate the potential of arts-based pedagogy as a tool for promoting balanced digital literacy and healthier digital behaviors.

The novelty of this research lies in its interdisciplinary approach, combining language education, digital well-being, and creative pedagogy. By embedding graffiti art into English lessons, the study contributes to innovative strategies for adolescent education while addressing critical concerns about digital well-being in the fast-paced technological era. Unlike adults, adolescents are uniquely positioned at a developmental stage where peer influence and creative expression strongly shape identity and behavior, making arts-based classroom interventions particularly impactful.

2. Method

To explore the role of English graffiti art in shaping healthy digital habits among junior high school students at SMP Swasta Alwashliyah 8 Medan, this study employed a mixed-method case study design. While qualitative inquiry formed the core of the research, quantitative elements were integrated through surveys to document students' digital habits. This design was chosen because it allowed for both in-depth exploration of experiences and measurable insights into behavioral change.

The inclusion of quantitative survey data complemented qualitative findings by providing descriptive indicators of awareness and practices, thereby strengthening methodological rigor. The combination of qualitative and quantitative data enhanced credibility through triangulation.

The participants consisted of three classes of seventh-grade students, totaling 74 students. Of these, 14 students completed the preliminary survey, and 14 students participated in semi-structured interviews. The selection of this group was purposive, based on teachers' feedback during preliminary interviews, which highlighted concerns about unhealthy digital habits such as late-night gaming and doomscrolling.

Junior high school students were considered appropriate participants because they represent Generation Alpha, aged 11–12, who have grown up immersed in digital technology. Ethical considerations were observed, with informed consent obtained from both students and teachers, and confidentiality maintained throughout the study.

Data were obtained through multiple techniques:

- a. Survey: An online questionnaire administered via Google Form documented students' digital habits. Likert-scale items (1 = strongly agree, 5 = strongly disagree) measured awareness, self-regulation, and perceptions of digital use. An additional open-ended question was also given to give the participants the opportunity to share their views on their digital habits.
- b. Graffiti Art Activity: Students colored printed graffiti art pieces with English slogans related to healthy digital habits. This activity served as both a language learning exercise and a reflective intervention.
- c. Observation: Classroom observations followed a structured protocol, focusing on indicators such as student engagement, collaboration, participation, attentiveness, and non-verbal behaviors (e.g., focus, distraction, peer interaction). Observations were conducted by the researcher during each graffiti session, with systematic notes recorded immediately after each class to ensure accuracy.
- d. Interviews: Semi-structured interviews were conducted with 14 students and several teachers. Each interview lasted approximately 20–30 minutes, was audio-recorded with consent, and later transcribed for analysis. Questions explored perceptions of how graffiti art influenced digital behaviors, peer collaboration, and learning experiences. Member checking was employed, allowing participants to verify interpretations.
- e. Reflective Journals and Artifacts: Students' graffiti outputs and journals were collected as qualitative data to capture creativity, linguistic practice, and personal reflection.

Quantitative survey responses were analyzed using descriptive statistics, including averages, frequencies, and percentages, to illustrate students' awareness and practices regarding digital well-being. Qualitative data from interviews, journals, and graffiti artifacts were analyzed through thematic coding. The coding process involved three stages: (1) open coding to identify initial categories, (2) axial coding to group related codes into broader themes, and (3) selective coding to refine dominant themes such as awareness, self-control, creativity, and peer influence. To enhance trustworthiness, coding procedures were peer-reviewed by a second researcher, and triangulation across surveys, interviews, observations, and artifacts strengthened validity.

Triangulation across multiple data sources ensured credibility. The survey instrument was piloted with a small group to confirm clarity and reliability. Member checking during interviews allowed participants to validate interpretations, while systematic observation notes and peer-reviewed coding enhanced transparency and reduced researcher bias. These procedures collectively reinforced the rigor of the study.

3. Result

Preliminary Survey

Fourteen students completed the preliminary online survey, providing initial insights into their digital habits and perceptions of well-being. Results revealed a clear paradox between awareness and practice. While 92.9% strongly agreed that they take care of their physical and mental health when using technology, 64.3% strongly disagreed with the statement "I manage my screen time responsibly." This contradiction suggests that although students conceptually value digital well-being, they struggle to enact it in daily life. Similarly, 85.7% strongly agreed that balancing online and offline activities is essential, yet their reported behaviors indicated difficulty in achieving such a balance.

Closer examination of the responses highlights individual differences. A small group of students reported setting boundaries or limiting screen time, while others admitted they lacked strategies altogether. For example, one student noted in the open-ended question, "I know I should sleep earlier, but I still play games until midnight because I can't stop." In contrast, another student shared, "I only use my phone for one hour after school, then I put it away so I can study." These contrasting cases illustrate the tension between awareness and self-regulation, reflecting the developmental stage of early adolescents who often recognize risks but vary in their ability to control behavior.

The survey data also underscore the influence of peer culture. Several students indicated that their digital use was shaped by friends' habits, suggesting that social dynamics may undermine individual intentions. This aligns with theories of adolescent development, where peer influence often outweighs personal discipline. Overall, the survey findings highlight both awareness and gaps

in self-regulation, underscoring the need for pedagogical interventions that move beyond abstract knowledge. The paradox between knowing and doing provides the rationale for integrating creative, reflective activities, such as graffiti art, into classroom practice, offering students concrete opportunities to pause, reflect, and reframe their digital behaviors.

The Preliminary Interview

Semi-structured interviews with 14 students provided deeper insights into their strategies and challenges in managing digital habits. Analysis revealed six recurring themes:

- a. Self-regulation: Several students described attempts to limit screen time, set boundaries, or take breaks. One student explained, "I try to stop using my phone after 9 PM, but sometimes I forget and keep scrolling." This illustrates both awareness and the difficulty of consistent discipline.
- b. External routines/tools: Some students relied on alarms or structured schedules to regulate their use. For example, "I set an alarm to remind me to study instead of playing games," noted one participant. These external aids highlight how adolescents often depend on environmental cues rather than internal control.
- c. Content management: A few students emphasized filtering social media or using technology purposefully. One remarked, "I only follow pages that inspire me, so I don't waste time on useless content." This reflects selective engagement strategies, though such practices were less common.
- d. Productivity focus: Several students redirected digital time into study or real-life activities. One explained, "When my phone is charging, I use that time to read or do homework." This demonstrates how students can reframe digital downtime as an opportunity for productivity.
- e. Alternative digital use: A minority described using technology selectively for inspiration rather than constant entertainment. For instance, "I don't use digital all the time, only when I need ideas for drawing," said one student, showing purposeful engagement.
- f. Uncertainty/lack of strategy: Importantly, several students admitted they had no clear approach. One confessed, "I don't know how to control it. I just use my phone until I feel tired." Another simply responded, "I can't answer." These negative cases highlight gaps in awareness and self-regulation, underscoring the need for structured interventions.

The interviews reveal individual differences in how students approach digital well-being. Some relied on external aids, others emphasized productivity or content filtering, while a minority struggled to articulate any strategy at all. The variation reflects the developmental stage of early adolescents: while many

recognize the importance of balance, their ability to translate awareness into consistent practice remains limited.

These findings reinforce the survey paradox, students value digital well-being but often lack the tools or discipline to enact it, and provide the rationale for introducing creative, reflective interventions such as graffiti art to bridge the gap between awareness and practice.

The English Graffiti Art Outputs



Figure 2. A group photo taken after students finished their Graffiti Art Project



Figure 3. Some examples of Students' Work

The classroom intervention began with an English warm-up activity and a short skit video related to unhealthy digital habits. In the warm-up, students completed an online quiz to test awareness of healthy, risky, and unhealthy digital practices, followed by a discussion of why certain habits fall into each category. The skit illustrated the consequences of neglecting digital well-being, prompting students to reflect on their own behaviors. Next, students were introduced to English slogans, learned new vocabulary, and selected their favorite phrases for the group graffiti art project. Commonly chosen slogans included “Sleep Well, Live Well,” “No Scroll No Problem,” “Scroll Less, Smile More,” “Use Tech for Good,” “One Hour is Enough,” and “Use Tech Wisely.”

Senior high school students assisted by documenting the process and guiding younger peers in coloring and design. Several junior high students experimented with bold colors and stylized lettering to emphasize their messages, while others integrated English vocabulary more simply. These artifacts reflected both awareness of digital habits and reinforcement of English language skills, as students actively chose and applied meaningful phrases. At the end of the session, students posted reflection statements, many promising to sleep earlier, reduce social media use, or “use tech for study, not just for fun.” One student wrote, “I will try to stop scrolling TikTok before midnight,” while another admitted, “I want to change, but it is hard.”

Analysis of selected outputs revealed how students used color, symbolism, and lettering styles to externalize reflections on digital habits:

- a. “Scroll Less, Smile More”: Warm gradients (brown, orange, yellow) contrasted with vibrant pink and green bubble letters, surrounded by golden stars. The muted tones for “scrolling” versus bright colors for “smiling” symbolized the tension between passive consumption and joyful real-world engagement.
- b. “Sleep Well, Live Well”: Multiple versions emphasized rest and vitality. Blue tones symbolized sleep, while red and yellow conveyed energy. One design added a crown above “Sleep” and the handwritten phrase “Sleep Early, Live Healthy,” linking discipline to success.
- c. “No Scrool Ow Problem”: Despite the misspelling (“Scrool” for “School”), the rainbow gradients, clouds, and birds suggested freedom and optimism. The linguistic error itself was pedagogically valuable, surfacing authentic language use and offering a teachable moment.
- d. “Use Tech for Good”: This piece employed green and blue tones, symbolizing growth and harmony, with upward arrows suggesting progress. The design framed technology as a tool for positive change, contrasting with slogans that emphasized restriction.
- e. “One Hour is Enough”: A minimalist design used bold black lettering with a clock motif, directly visualizing time discipline. This artwork reflected a pragmatic approach, emphasizing measurable limits rather than abstract ideals.

Collectively, these outputs illustrate several themes:

- a. Awareness and reflection: Students articulated digital well-being messages through chosen slogans.
- b. Language learning in practice: Vocabulary and phrasing were reinforced, with errors offering teachable moments.
- c. Creativity and ownership: Designs varied widely, showing individual differences in symbolism, color use, and linguistic focus.
- d. Commitment to change: Reflection statements revealed promises to improve habits, though some students admitted difficulty, highlighting both positive and negative cases.
- e. Inclusivity and diversity: Some students emphasized bold visual impact, others focused on language accuracy or symbolic meaning, making the intervention accessible to different learning styles.

By analyzing both the visual elements and the linguistic choices, the graffiti outputs demonstrate how arts-based pedagogy provided a culturally resonant medium for students to express awareness of digital habits. The diversity of designs and reflections highlights that students engaged with the activity at different levels, from enthusiastic and creative to hesitant and minimal, reinforcing the intervention's inclusivity and pedagogical value.

Classroom Observation

Observation notes revealed a marked increase in engagement compared to traditional English lessons. Students who were typically passive became active contributors, participating in brainstorming sessions and group design activities. For example, one previously quiet student was observed suggesting a slogan idea to peers, while another took initiative in coloring and explaining the meaning of their design.

Collaboration fostered peer learning, with students correcting one another's English phrasing and negotiating symbolic imagery. Importantly, discussions about digital habits emerged organically, as students debated strategies for healthier technology use. One group was overheard saying, "If we sleep late, we cannot focus tomorrow," while another countered, "But sometimes we need the phone for homework." These exchanges demonstrated how the activity prompted critical reflection and dialogue.

Teachers noted that the graffiti project created an inclusive environment where diverse learners participated meaningfully. Group dynamics improved, with students showing mutual support and accountability. The atmosphere was energetic and creative, contrasting with the subdued participation often observed in conventional lessons.

However, not all students engaged equally. A few remained hesitant, contributing minimally or focusing only on coloring without reflecting on the message. This variation highlighted individual differences in confidence, creativity, and readiness to engage with abstract concepts of digital well-being.

The activity promoted ownership and accountability, as students took pride in presenting their work to classmates. Teachers observed that students were eager to explain the meaning behind their slogans, linking them to personal experiences. One teacher commented, "I saw students who usually avoid speaking in English now confidently explaining their graffiti message." At the same time, another teacher noted, "Some students just colored quickly without thinking about the message, which shows that not all are ready to reflect deeply."

Overall, classroom observations confirmed that the graffiti art intervention fostered engagement, collaboration, and reflection. It provided opportunities for peer learning and creative expression, while also revealing differences in participation and depth of reflection. These findings underscore the value of arts-based pedagogy in creating inclusive learning environments, while reminding educators that not all students will engage at the same level of creativity or critical awareness.

Teachers' and Students' Interview

Post-intervention interviews reinforced the survey and observation findings, revealing how graffiti art shaped students' reflections on digital habits and their engagement with English learning. Students consistently reported that the activity helped them think critically about technology use while making lessons more enjoyable. Peer influence was particularly strong: one student reflected, "When I saw my friend's graffiti about wasting time on TikTok, I thought about how I also spend too much time there." Another admitted, "I promised to sleep earlier, but sometimes I still play games until midnight. Seeing my classmates' slogans reminded me I need to try harder." These excerpts illustrate both positive awareness and the persistence of challenges, highlighting individual differences in self-regulation.

Themes of awareness, self-control, creativity, and collaboration were dominant. Several students emphasized how the project encouraged them to use English meaningfully. One explained, "I learned new words like 'scroll' and 'wisely,' and I used them in my graffiti. It made me remember better." Others focused on creativity: "I liked choosing colors because it showed my feeling about the message." Yet, a few students were less engaged, with one commenting, "I just colored quickly because I didn't know what to draw." These negative cases underscore that not all students reached the same depth of reflection.

Teachers confirmed positive outcomes, noting that the activity provided students with a mindful pause from constant smartphone use. One teacher observed, "Students often come to class tired from staying up late online. This

project gave them a chance to stop and think about their habits.” Another emphasized balance: “They need time to be on and off their devices. The graffiti activity showed them that reflection can be fun and creative.” However, teachers also acknowledged variation in engagement, with some students producing thoughtful designs and others contributing minimally.

Overall, the interviews demonstrate that graffiti art created a space for both linguistic practice and behavioral reflection. Students articulated awareness of their digital habits, often influenced by peers, while teachers highlighted the intervention’s role in fostering mindfulness and balance. The combination of positive insights and hesitant responses underscores the complexity of adolescent digital well-being, reinforcing the need for creative, inclusive pedagogical approaches.

4. Discussion

Interpretation of Findings

The findings of this study reveal a complex interplay between awareness, practice, and reflection in students’ digital habits. The preliminary survey highlighted a paradox: while 92.9% of students strongly agreed that they take care of their physical and mental health when using technology, 64.3% strongly disagreed that they managed their screen time responsibly. This contradiction underscores a critical tension between conceptual awareness and behavioral practice.

Adolescents may understand the risks of excessive digital use, yet struggle to enact consistent self-regulation. This phenomenon has been documented in prior research, where awareness of risks does not necessarily translate into behavioral change (Alam et al., 2025; Islambouli et al., 2025)

The interviews reinforced this tension. Students articulated strategies such as limiting screen time, setting alarms, filtering content, and redirecting digital use toward productivity. Yet, a notable proportion expressed uncertainty or admitted they lacked strategies altogether. This variation reflects developmental differences: some adolescents experiment with self-regulation, while others remain dependent on external aids.

From a theoretical perspective, this resonates with constructivist learning theory (Piaget, 1972; Vygotsky, 1978), which emphasizes that knowledge is actively constructed and requires scaffolding. Adolescents may need structured opportunities to translate abstract awareness into practical strategies. The reliance on external aids such as alarms illustrates what Vygotsky would describe as the use of “mediating tools”, external supports that scaffold self-regulation until internalized.

The graffiti art intervention provided such a scaffold. By engaging students in creative expression, the activity externalized their reflections on digital habits, transforming abstract awareness into tangible artifacts. The slogans chosen, “Think Before You Scroll,” “Sleep Well, Live Well,” “Use Tech Wisely”, illustrate attempts to articulate healthier practices. Importantly, these outputs were generated by students themselves, not imposed by teachers, suggesting internalization of concepts.

The act of designing and coloring graffiti pieces created a reflective pause, consistent with Kolb’s (Kolb, 1984) experiential learning cycle, where concrete experience and reflective observation precede active experimentation. In this sense, graffiti art functioned as a bridge between knowledge and practice, enabling students to embody reflection through creative tasks.

Classroom observations confirmed that the intervention shifted engagement patterns. Students who were typically passive became active contributors, collaborating with peers and negotiating both linguistic and visual representations of digital habits. This transformation suggests that creative pedagogy can disrupt established classroom dynamics, fostering inclusivity and participation.

The energy and ownership observed during the sessions contrast sharply with the fatigue and disengagement often reported in conventional lessons, particularly in the context of Medan’s extended school hours regulation. The graffiti activity thus served not only as a language learning tool but also as a coping mechanism, offering students a constructive outlet to reclaim agency over their time and attention.

Interviews with students and teachers provided further evidence of the intervention’s impact. Students consistently reported that the activity helped them think critically about their technology use, with peer influence playing a significant role. Seeing classmates’ artwork prompted self-reflection, illustrating the social dimension of behavioral change.

This aligns with Bandura’s social learning theory (Bandura, 1977), which emphasizes that individuals often adopt behaviors modeled by peers. Teachers echoed these sentiments, noting that the project allowed students to pause from smartphone use and reconnect with real-life activities.

However, while these findings are promising, they must be interpreted with caution. The outputs and reflections demonstrate awareness rather than confirmed long-term behavioral change. Awareness is fragile, easily undermined by the allure of technology and the pressures of extended school schedules. Without longitudinal follow-up, it remains unclear whether students’ commitments, such as promises to sleep earlier or scroll less, will be sustained.

The graffiti art intervention provided a culturally resonant and pedagogically innovative means of strengthening awareness, fostering self-control, creativity, and collaboration. Yet its impact should be understood as an important first step in the process of behavioral change, rather than evidence of permanent transformation.

Role of Graffiti in Pedagogy

The integration of graffiti art into English language learning proved to be more than a creative diversion; it functioned as a pedagogical strategy that reshaped how students engaged with both language and digital well-being. Unlike traditional lessons that often emphasize rote memorization or structured grammar exercises, the graffiti activity invited students to merge linguistic skills with artistic expression. This dual focus encouraged them to think critically about vocabulary and slogans while simultaneously reflecting on their personal digital practices. For instance, the choice of phrases such as “Think Before You Scroll” or “Sleep Well, Live Well” demonstrated not only the acquisition of new English expressions but also a conscious effort to articulate healthier digital behaviors.

The pedagogical value of graffiti art lies in its ability to foster ownership and agency in learning. Students were not passive recipients of teacher instruction; rather, they became co-creators of meaning, selecting slogans, experimenting with colors, and stylizing their messages to reflect personal experiences. This process aligns with constructivist learning theory (Piaget, 1972; Vygotsky, 1978), which emphasizes that knowledge is actively constructed through engagement and reflection.

In this case, graffiti art served as a medium through which students could externalize their internal struggles with technology, transforming abstract awareness into visible, shareable artifacts. The act of creation also resonates with Kolb’s (1984) experiential learning cycle, where concrete experience and reflective observation precede active experimentation, suggesting that art activities can scaffold the transition from awareness to practice.

Moreover, the activity created a more inclusive classroom environment. Observations revealed that students who were typically quiet or hesitant in conventional English lessons became active participants during the graffiti sessions. The open-ended nature of the task allowed diverse learners to contribute according to their strengths: some focused on linguistic accuracy, others on visual creativity, and still others on collaborative negotiation of ideas. This inclusivity is particularly significant in junior high school contexts, where differences in confidence and ability often lead to uneven participation. By leveling the playing field through art, the intervention promoted equity and engagement across the classroom.

The graffiti art also functioned as a mindfulness practice. Teachers noted that the activity provided students with a pause from constant smartphone use, redirecting their attention to a tactile, embodied task. The act of coloring and designing required sustained focus, offering students a break from digital overstimulation. This echoes findings from Bjursell et al. (2025) and Victoria(2025), who argue that art activities can serve as coping mechanisms, helping learners regulate emotions and reconnect with real-world experiences. In

the context of Medan's extended school hours, where fatigue and disengagement are common, such mindful breaks are particularly valuable.

At the same time, it is important to acknowledge potential limitations. The novelty of graffiti art may have amplified enthusiasm, raising questions about sustainability. Would students remain equally engaged if such activities were repeated regularly, or would the impact diminish once the novelty fades? Furthermore, while graffiti art fostered inclusivity, it may not appeal equally to all learners; some students may prefer other creative or reflective modalities such as music, drama, or journaling. This suggests that graffiti art should be viewed as one promising approach within a broader repertoire of arts-based pedagogy, rather than a universal solution.

Finally, the integration of graffiti art reinforced the interdisciplinary nature of the study. By combining language education, creative expression, and digital literacy, the intervention addressed multiple learning objectives simultaneously. Students improved their English vocabulary, practiced collaboration, expressed creativity, and reflected on digital well-being, all within a single activity.

This holistic approach demonstrates the potential of arts-based pedagogy to enrich curricula, making lessons not only academically rigorous but also personally meaningful and socially relevant. Yet, its effectiveness depends on contextual factors such as school culture, teacher readiness, and student receptivity, underscoring the need for careful adaptation when transferring the approach to other settings.

Peer Influence and Collaborative Reflection

One of the most striking findings of this study was the role of peer influence in shaping students' reflections on their digital habits. Interviews revealed that students were not only motivated by their own graffiti outputs but also by the messages and designs created by their classmates. For example, one student admitted that seeing a peer's graffiti about wasting time on TikTok prompted them to reconsider their own excessive use of the platform.

This illustrates how peer-generated artifacts can act as mirrors, reflecting shared experiences and encouraging self-evaluation. Such peer-to-peer influence is consistent with Bandura's (1977) social learning theory, which emphasizes that individuals often adopt behaviors modeled by those around them. In this case, graffiti art became a medium through which students could both express and absorb collective insights about digital well-being.

The collaborative nature of the activity further amplified this effect. Students worked in pairs or small groups, negotiating the messages they wanted to convey and correcting one another's English phrasing. These exchanges fostered peer learning, as students not only improved their linguistic accuracy but also deepened their understanding of digital habits through dialogue. The process of co-creating graffiti pieces required compromise, discussion, and mutual support, reinforcing

the idea that digital well-being is not an isolated endeavor but a shared responsibility. From a constructivist perspective, such collaboration represents a form of scaffolding, where learners build knowledge together through social interaction and shared reflection.

Peer collaboration also contributed to the authenticity of the intervention. Because the messages were generated by students themselves, they carried greater credibility and resonance than teacher-imposed slogans. Students were more likely to reflect on and internalize messages that originated from their peers, as these were perceived as relevant to their own lived experiences. This authenticity is crucial in adolescent contexts, where external authority figures often struggle to influence personal behaviors outside the classroom. By leveraging peer influence, the graffiti activity extended its impact beyond the immediate lesson, encouraging students to carry reflections into their personal digital practices.

Teachers' interviews reinforced this perspective, noting that students seemed more mindful of their smartphone use after engaging in the graffiti project. Teachers highlighted that the activity provided students with a constructive pause, redirecting their attention from digital devices to real-world creative tasks. Importantly, this pause was not enforced by teachers but facilitated through peer collaboration and shared ownership of the activity. This distinction matters: rather than perceiving the intervention as a restriction, students experienced it as a collective exploration, making them more receptive to its messages.

At the same time, caution is warranted. Peer influence can be a double-edged sword: while positive messages may inspire healthier practices, negative peer dynamics could normalize unhealthy behaviors in other contexts. For example, if students collectively celebrated excessive gaming or late-night scrolling, peer reinforcement might undermine digital well-being rather than support it. This alternative interpretation underscores the importance of teacher facilitation in guiding peer collaboration toward constructive outcomes.

Overall, the findings suggest that peer influence and collaboration are powerful mechanisms for promoting digital well-being among adolescents. The graffiti art activity harnessed these mechanisms by creating a social and creative space where students could reflect together, inspire one another, and collectively negotiate healthier digital practices. This underscores the importance of designing pedagogical interventions that not only target individual awareness but also cultivate supportive peer environments, thereby enhancing the sustainability of behavioral change.

Contribution to Literature and Novelty

This study makes a significant contribution to the growing discourse on digital well-being by shifting the focus from adults and university students to adolescents, particularly junior high school students. As highlighted in prior

scholarship, most existing studies have concentrated on older populations, examining issues such as smartphone addiction among university students (Islambouli et al., 2025), sleep disruption in adults (Alam et al., 2025), or workplace well-being in employees (Sansovini & Magida, 2025).

By contrast, adolescents, especially those in early adolescence, remain underrepresented in scholarly discussions, despite being the generation most immersed in digital technologies from birth. This research addresses that gap by exploring how creative pedagogical interventions can foster healthier digital habits among Generation Alpha students, thereby extending the scope of digital well-being research into a critical developmental stage.

The novelty of this study lies in its interdisciplinary approach, combining language education, creative pedagogy, and digital literacy within a single intervention. While previous studies have examined the role of art in self-expression and coping (Abate, 2022; Bjursell et al., 2025; Victoria, 2025), few have explicitly connected artistic practices with digital well-being education. By embedding graffiti art into English language learning, this research demonstrates how arts-based pedagogy (Barone & Eisner, 2012) can simultaneously enhance linguistic competence, foster creativity, and encourage critical reflection on technology use.

This integration represents a fresh contribution to both language education and digital literacy scholarship, offering a model for how interdisciplinary strategies can address contemporary challenges in adolescent life.

Furthermore, the study situates its findings within the local context of Medan, where extended school hours have raised concerns about student fatigue and unhealthy coping mechanisms such as revenge bedtime procrastination. By introducing graffiti art as a mindful classroom activity, the research provides a culturally resonant solution that acknowledges the realities of students' daily schedules. This contextual grounding enhances the study's relevance, showing how global concerns about digital well-being can be addressed through locally meaningful pedagogical practices.

The originality of the intervention also lies in its emphasis on student agency and authenticity. Rather than imposing prescriptive rules about digital use, the graffiti activity invited students to generate their own messages and reflections. This bottom-up approach contrasts with traditional digital literacy programs that often rely on teacher-led instruction or parental monitoring.

By empowering students to articulate their own slogans and designs, the study highlights the importance of constructivist principles of co-creation (Piaget, 1972; Vygotsky, 1978) and the role of peer influence in social learning (Bandura, 1977). These elements are particularly valuable in adolescent contexts, where autonomy and peer relationships play a central role in identity formation and decision-making.

Limitations and Future Directions

At the same time, the contribution must be interpreted with caution. The graffiti art intervention demonstrated immediate impacts on awareness and reflection, but the sustainability of these changes remains uncertain. The novelty effect may have amplified engagement, and without longitudinal follow-up, it is unclear whether students' commitments to healthier digital habits will persist. Moreover, while the study's contextual grounding in Medan strengthens cultural relevance, it also limits transferability. Different school systems, cultural traditions, or technological environments may yield different outcomes, underscoring the need for comparative studies across diverse settings.

Therefore, the study advances the literature by filling a critical gap in adolescent digital well-being research, introducing an innovative interdisciplinary methodology, and demonstrating the value of culturally grounded, student-centered interventions. Its novelty lies not only in the use of graffiti art but also in the way this medium was embedded into language learning, transforming a routine classroom subject into a platform for reflection, creativity, and behavioral awareness. By integrating constructivist, experiential, and arts-based frameworks, the study provides a theoretical and practical model for how creative pedagogy can bridge the gap between awareness and practice in adolescent digital life.

Although this study provides valuable insights into the role of English graffiti art in shaping healthy digital habits among junior high school students, several limitations must be acknowledged.

First, the research was conducted in a single private school in Medan with a relatively small sample size. While the case study design allowed for rich, contextualized exploration, the findings cannot be generalized to all adolescents or educational settings. Different schools, regions, or cultural contexts may yield different outcomes, particularly given variations in digital access, pedagogical traditions, and student lifestyles. Expanding the research to include multiple schools and diverse populations would strengthen the external validity of the findings and allow for comparative analysis across diverse educational systems.

Second, the reliance on self-reported data from surveys and interviews introduces the possibility of response bias. Students may have overstated their awareness of digital well-being or their commitment to healthier practices, either to please teachers or to align with perceived expectations. While triangulation with classroom observations and graffiti artifacts helped mitigate this limitation, future studies could incorporate objective measures of digital use, such as screen-time tracking applications, sleep monitoring devices, or parental reports, to provide a more accurate picture of behavioral change.

Third, the intervention was relatively short-term, focusing on a single set of classroom activities. While immediate reflections and outputs suggested positive impacts, it remains unclear whether these changes were sustained over time.

Digital habits are deeply ingrained and influenced by multiple factors, including family environment, peer culture, and broader societal trends.

Longitudinal research is needed to examine whether arts-based interventions like graffiti art can produce lasting shifts in behavior, or whether their effects diminish once the novelty of the activity fades. This distinction is critical, as awareness does not automatically equate to long-term behavioral change.

Fourth, the study did not systematically measure linguistic gains beyond the slogans and vocabulary incorporated into graffiti pieces. While observations indicated that students practiced English meaningfully, future research could employ pre- and post-tests to assess language development more rigorously. This would provide stronger evidence of the dual benefits of integrating creative pedagogy into language education, demonstrating how arts-based interventions can simultaneously support linguistic competence and digital well-being.

Finally, the study was conducted within the specific context of Medan's extended school hours regulation, which may have influenced students' fatigue levels and coping mechanisms. While this context provided a unique lens through which to examine digital well-being, it also limits the applicability of findings to regions with different school schedules. Comparative studies across varied educational systems would help clarify how contextual factors shape the effectiveness of arts-based interventions.

Future research should therefore pursue several directions. Larger, multi-site studies could explore the scalability of graffiti art pedagogy across diverse cultural and educational contexts. Longitudinal designs would allow researchers to track behavioral changes over months or years, providing insights into the sustainability of interventions. Mixed-methods approaches that combine qualitative reflections with quantitative measures of screen time, sleep quality, and academic performance could offer a more comprehensive understanding of outcomes.

Additionally, comparative studies could examine the effectiveness of graffiti art relative to other creative or mindfulness-based interventions, such as music, drama, or journaling, thereby identifying which strategies are most impactful for adolescent digital well-being.

By addressing these limitations and pursuing future research directions, scholars can build on the present study to develop more robust, evidence-based pedagogical strategies. Such efforts are essential for equipping adolescents with the awareness, skills, and resilience needed to navigate the challenges of digital life in the 21st century.

Implications for Practice

The findings of this study carry important implications for teachers, curriculum designers, policymakers, parents, and communities seeking to address the challenges of adolescent digital well-being.

First, the results suggest that teachers can play a proactive role in promoting healthier digital habits without intruding into students' personal lives. By embedding creative, arts-based activities such as graffiti art into English lessons, educators can provide students with mindful alternatives to excessive smartphone use. This approach respects students' autonomy while simultaneously equipping them with strategies to reflect on and regulate their digital behaviors. From a constructivist perspective, teachers act as facilitators who scaffold reflection, enabling students to construct meaning through creative engagement rather than prescriptive instruction.

Second, the study highlights the value of interdisciplinary pedagogy. Traditional language lessons often focus narrowly on grammar, vocabulary, or reading comprehension. However, the integration of graffiti art demonstrates that language learning can be enriched by combining linguistic objectives with creative and social dimensions. Students not only practiced English vocabulary but also engaged in collaborative reflection on digital well-being.

This aligns with Kolb's experiential learning cycle, where concrete experiences (art creation) and reflective observation (discussion of digital habits) reinforce deeper learning. Curriculum designers should therefore consider embedding arts-based and mindfulness activities into language education, fostering holistic development that encompasses academic, personal, and social growth.

Third, the findings underscore the importance of peer collaboration in shaping behavioral change. Students were strongly influenced by their classmates' graffiti outputs, which motivated them to reconsider their own digital habits. This peer-to-peer dynamic reflects social learning theory (Bandura, 1977), which emphasizes that individuals often adopt behaviors modeled by peers.

Interventions should therefore be designed to leverage social influence, creating opportunities for students to learn from and inspire one another. Group projects, peer discussions, and collaborative art activities can amplify the impact of digital well-being education, making it more authentic and sustainable. At the same time, educators must remain attentive to the possibility of negative peer reinforcement, ensuring that collaborative spaces are guided toward constructive outcomes.

Fourth, the study offers insights for policymakers and school administrators, particularly in contexts where extended school hours may contribute to student fatigue and unhealthy coping mechanisms. The Medan regulation requiring students to remain in school until 4 PM raises concerns about late-night gaming and doomscrolling as students attempt to reclaim personal time. Creative classroom practices such as graffiti art can serve as constructive coping strategies, helping students manage fatigue and resist unhealthy digital behaviors. Policymakers should therefore support the integration of arts-based pedagogy into curricula as part of broader efforts to promote student well-being. However,

sustainability must be considered: interventions should not be one-off activities but embedded into broader curricular frameworks to ensure lasting impact.

Finally, the implications extend to parents and communities. While teachers cannot supervise students' digital use outside school, the study shows that classroom interventions can indirectly influence behaviors at home. By fostering awareness and reflection during lessons, educators can encourage students to carry healthier habits into their personal lives. Parents and communities can build on these efforts by reinforcing the messages students generate in school, creating a supportive environment for digital well-being. This collective responsibility reflects the ecological perspective on adolescent development, where schools, families, and communities jointly shape behavioral outcomes.

In sum, the study demonstrates that promoting healthy digital habits among adolescents requires a multi-layered effort that spans classrooms, curricula, policies, and communities. Arts-based pedagogy, particularly graffiti art, offers a promising avenue for fostering awareness, creativity, collaboration, and mindfulness. By adopting such approaches, educators and policymakers can help adolescents navigate the complexities of digital life more intentionally, supporting both their academic success and overall, well-being.

5. Conclusion

This study explored the role of English graffiti art in shaping healthy digital habits among junior high school students at SMP Swasta Alwashliyah 8 Medan. The findings revealed a paradox: while students were aware of the importance of maintaining digital well-being, many struggled to manage screen time responsibly.

Through the integration of graffiti art into English language learning, students externalized their reflections on technology use, articulated meaningful slogans, and engaged in collaborative, creative practices that reinforced both linguistic and behavioral awareness. Classroom observations and interviews confirmed that the intervention fostered inclusivity, peer influence, and mindfulness, offering students a constructive pause from excessive smartphone use.

The study contributes to the literature by addressing a gap in adolescent digital well-being research, introducing an interdisciplinary approach that combines language education, creative pedagogy, and digital literacy. Its novelty lies in demonstrating how arts-based interventions can simultaneously enhance linguistic competence, foster creativity, and promote reflection on healthier digital behaviors. Importantly, the findings should be interpreted as evidence of awareness and reflection rather than long-term behavioral change, as sustainability remains uncertain without longitudinal follow-up.

Several recommendations emerge from this study:

- a. For educators: Teachers should embed creative, arts-based activities such as graffiti art into language lessons to promote reflection, collaboration, and mindfulness. Such interventions can indirectly influence students' digital habits outside school hours while enriching classroom engagement.
- b. For curriculum designers: Interdisciplinary approaches that integrate language learning with digital literacy and creative expression should be developed to foster holistic student development.
- c. For policymakers: In contexts where extended school hours contribute to fatigue and unhealthy coping mechanisms, schools should incorporate mindful, creative breaks into curricula to support student well-being.
- d. For researchers: Future studies should expand to larger and more diverse populations, employ longitudinal designs to assess sustainability, and integrate objective measures of digital use to complement self-reported data. Comparative studies across different cultural and educational contexts would further clarify the adaptability of arts-based pedagogy.

In conclusion, this study underscores the potential of graffiti art as a pedagogical tool for promoting adolescent digital well-being. By combining language education with creative reflection, educators can help students navigate the complexities of digital life more intentionally. While the intervention demonstrated immediate impacts on awareness and engagement, its long-term effectiveness depends on sustained practice, contextual adaptation, and broader systemic support. Ultimately, arts-based pedagogy offers a promising pathway for equipping adolescents with the awareness, skills, and resilience needed to thrive in the digital age.

6. Acknowledgement

The authors would like to express their sincere gratitude to the teachers and students of SMP Swasta Alwashliyah 8 Medan for their enthusiastic participation and valuable insights throughout the study. Their openness and creativity in engaging with the graffiti art activities were central to the success of this research. Special thanks are extended to the Head Master and school administration of SMP Swasta Alwashliyah 8 Medan for granting permission and providing support during the data collection process.

The authors also acknowledge the contributions of senior high school students who assisted in guiding the younger participants during the graffiti sessions, ensuring both safety and collaboration. Appreciation is further given to colleagues and peers who provided constructive feedback during the design and implementation of the study.

Finally, the authors recognize the broader academic community whose scholarship on digital well-being, creative pedagogy, and language education provided the foundation for this research. Without their work, this study would not have been possible.

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