

Strengthening Digital Morals and Ethics among High School Students through the Civilized School Program: A Community Engagement Initiative at SMA Negeri 2 Plus Panyabungan

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Abstract. The increasing use of social media among adolescents presents challenges for character development in schools, particularly in digital communication ethics, responsible information sharing, cyberbullying, and self-regulation. This highlights the need to integrate digital literacy with character education to promote responsible online behavior. This community engagement program aimed to strengthen students' digital morals and ethics through the Civilized School Program at SMA Negeri 2 Plus Panyabungan, Indonesia. The program involved 30 students from grades X-XII and used an educational-participatory approach supported by teachers and school staff. Activities included digital ethics counseling, training on healthy digital communication, cyberbullying case simulations, reflective discussions, student-led digital campaigns, and the formation of student character ambassadors. Program evaluation used a mixed-method design involving pretest-posttest questionnaires, observations, reflections, and teacher interviews. Quantitative results showed an increase in average scores from 60.1% to 87.1%, representing a 27.0 percentage-point improvement across five indicators: digital communication ethics, awareness of cyberbullying, social empathy, responsible social media use, and self-regulation. Qualitative findings indicated improved student behavior, including more cautious online communication, more selective information sharing, and greater respect for others' opinions. Overall, the program contributed to fostering a more ethical and responsible digital culture within the school. The Civilized School Program demonstrates potential as a participatory school-based model for integrating digital literacy and character education among adolescents.

Keywords: digital ethics; digital morality; character education; digital citizenship; Civilized School Program.

1. Introduction

The rapid development of digital technology has significantly transformed patterns of social interaction, communication practices, and character formation among younger generations, particularly high school students. Social media is no longer used merely as a tool for communication and entertainment; it has become an important social space in which adolescents construct identities, negotiate relationships, and express themselves. As a result, digital environments are now deeply embedded in adolescents' everyday lives and strongly influence how they communicate and behave. UNESCO

(2023) emphasizes that digital transformation in education must be accompanied by the development of character education and digital citizenship so that learners can use technology responsibly, ethically, and humanely. Similarly, UNESCO (2021) calls for a new social contract for education that places moral values, empathy, solidarity, and social responsibility at the center of learning. These concerns are particularly relevant for adolescents, who are highly active in digital spaces but may still be developing emotional regulation and moral judgment (UNICEF, 2021).

In Indonesia, social media use among adolescents has become widespread and increasingly integrated into daily communication, learning, and social interaction. This digital engagement has influenced communication patterns, social behavior, and identity formation among Indonesian youth (Purboningsih et al., 2023). However, high levels of digital activity do not automatically translate into adequate ethical awareness or responsible behavior. Without proper guidance, social media use may lead to problematic behaviors such as cyberbullying, hate speech, misinformation sharing, and reduced social empathy. Therefore, the challenge of digital education is not only technical but also moral and behavioral, requiring students to develop the ability to make ethical judgments and act responsibly in online environments. Livingstone and Third (2020) argue that young people need not only digital skills but also the capacity to navigate digital spaces in ways that respect rights, responsibilities, and social relationships. In the Indonesian context, UNICEF (2022) similarly highlights the importance of strengthening digital literacy and online safety to reduce adolescents' vulnerability to harmful digital experiences.

One of the most visible consequences of insufficient digital ethics among adolescents is cyberbullying. Cyberbullying is not merely a technological issue but is closely related to moral development, emotional regulation, and social interaction patterns. Bukhori et al. (2024) found that cyberbullying behavior among Indonesian adolescents is associated with weak self-control, social conformity, and limited internalization of moral values. Previous research also shows that cyberbullying can lead to serious psychosocial impacts, including anxiety, depression, and disrupted peer relationships (Kowalski & Limber, 2021). In addition, empathy and emotional regulation have been identified as key factors influencing bullying and cyberbullying behavior (Aini & Rahardjo, 2023). Similar concerns have been reported among Indonesian students in the context of increasing digital engagement (Santhoso et al., 2023). These findings indicate that addressing cyberbullying requires more than preventive rules; it requires character development, empathy building, and the cultivation of responsible communication habits. Effective prevention also depends on school involvement and the development of a positive digital culture (Hinduja & Patchin, 2022).

In this context, schools play a strategic role in shaping students' digital character. Schools are not only responsible for academic instruction but also for developing ethical values, social-emotional competencies, and responsible behavior in both offline and online environments. The OECD (2021) emphasizes the importance of integrating twenty-first-century skills with character education and digital literacy to prepare

students for contemporary challenges. The OECD (2023) further highlights student well-being in digital environments, including responsible communication, self-regulation, and positive social interaction. In Indonesia, school culture is particularly influential because students' character is shaped through daily interactions, institutional norms, and social relationships within the school environment. A positive school culture can strengthen character education implementation and support behavioral change among students (Prasetyo, 2022). Therefore, digital ethics education should be embedded within school culture rather than treated as a separate or one-time program.

This need is also evident at SMA Negeri 2 Plus Panyabungan. An initial needs assessment conducted with the school revealed that social media is widely used by students for communication, entertainment, and learning. However, several concerns were identified regarding digital communication behavior. These include the use of impolite language in online interactions, the sharing of unverified information, and limited awareness of the emotional impact of negative online communication. Teachers also reported instances of teasing, inappropriate language, and misinformation circulating in class communication groups. Although these behaviors had not escalated into serious disciplinary cases, they indicate emerging patterns of digital communication that require early intervention. These findings highlight the need for a preventive and developmental approach that strengthens students' ethical awareness and promotes responsible digital interaction.

Various digital literacy programs have been implemented in schools, focusing on digital safety, misinformation awareness, and technical skills. However, technical competence alone is insufficient to ensure responsible digital behavior. The moral and relational dimensions of digital engagement—such as empathy, self-control, respect, and social responsibility—require systematic attention. Common Sense Media (2023) highlights risks associated with unregulated digital media use among adolescents, while the World Health Organization (WHO, 2022) emphasizes the importance of addressing the mental health implications of harmful digital experiences. These concerns reveal a gap between technical digital literacy and ethical digital behavior, indicating the need for more integrated educational approaches that combine skills development with character formation.

In response to this gap, the present community engagement program implemented the Civilized School Program at SMA Negeri 2 Plus Panyabungan. The program was designed to strengthen students' digital morals and ethics by enhancing awareness of responsible social media use, increasing understanding of the consequences of cyberbullying, and fostering values such as empathy, responsibility, discipline, and respect. The program integrates digital literacy with character education through participatory and experiential learning approaches. Activities include digital ethics counseling, cyberbullying case simulations, reflective discussions, and student-led digital campaigns. In addition, student character ambassadors were established to promote positive digital behavior within the school community.

The Civilized School Program is distinctive in its integration of moral education, digital literacy, experiential learning, and school culture development. Rather than focusing solely on technical skills or online safety, the program emphasizes ethical reflection, behavioral awareness, and active student participation. Students are positioned not only as recipients of knowledge but also as agents of change who contribute to shaping a more respectful and responsible digital environment. This participatory approach is important because sustainable character development requires continuous reflection, practice, and reinforcement within everyday social interactions.

Overall, this community engagement initiative aims to contribute to the development of a healthier school digital culture by linking digital literacy with character education. Beyond improving students' knowledge, the program seeks to foster responsible digital citizenship characterized by empathy, integrity, and social responsibility. In the long term, the Civilized School Program is expected to serve as a contextual model for integrating digital ethics into school-based character education, particularly in response to the growing influence of digital technology in adolescents' lives.

2. Methodolgy

The Civilized School Program was implemented as a community engagement initiative at SMA Negeri 2 Plus Panyabungan, Mandailing Natal, North Sumatra, Indonesia, involving students from Grades X–XII. The school was selected based on its relevance to character education development and the increasing use of social media among adolescents, which highlighted the need to strengthen students' digital morals and ethical communication practices. An initial needs assessment conducted in collaboration with school representatives indicated that students frequently used digital platforms for communication and entertainment, yet still required further guidance in areas such as ethical online interaction, responsible content sharing, and awareness of cyberbullying risks. These findings informed the design of the intervention and evaluation framework.

The program involved 30 purposively selected students, chosen in consultation with the school based on their level of digital engagement and potential to act as peer role models. Teachers and homeroom teachers also participated as facilitators to support continuity of character development beyond the intervention period. The program adopted a participatory educational design, positioning students not only as recipients of information but also as active participants in discussions, reflections, and problem-solving activities related to digital communication ethics.

The implementation consisted of three stages: preparation, intervention, and evaluation. The preparation stage included needs assessment, coordination with the school, and development of learning materials and instruments. The intervention stage was conducted over two weeks and included six main activities: (1) counseling on digital morals and ethics, (2) training on responsible digital communication, (3) cyberbullying case simulations and conflict resolution exercises, (4) group discussions and reflective

sessions, (5) student-led digital campaigns through posters and school media, and (6) formation of student character ambassadors. These activities emphasized five core values: responsibility, empathy, digital courtesy, self-control, and social awareness.

The program applied educational, persuasive, and reflective approaches. The educational component delivered structured content on digital ethics and cyberbullying prevention. The persuasive component involved mentoring and reinforcement of positive communication behavior. The reflective component encouraged students to evaluate their own digital practices and consider the social consequences of online behavior. Digital media such as presentations, videos, reflection sheets, and school social media platforms were used to support interactive learning and student participation.

Program outcomes were assessed using a mixed-method approach. Quantitative data were collected through a pretest-posttest questionnaire using a five-point Likert scale measuring five indicators: digital communication ethics, awareness of cyberbullying, empathy, responsibility in social media use, and self-control. Qualitative data were obtained through classroom observations, student reflection sheets, activity documentation, and brief interviews with teachers to capture behavioral changes and contextual insights.

Data analysis was conducted descriptively. Quantitative data were analyzed by comparing mean scores and percentage changes between pretest and posttest results. Given the small sample size and non-experimental design, findings were interpreted as indicative changes among participants rather than causal effects. Qualitative data were analyzed thematically through data reduction, organization, and interpretation to identify patterns in students' attitudes and behaviors.

The program was implemented over one month, consisting of one week of preparation, two weeks of intervention activities, and one week of evaluation and reporting. This structure allowed students to progressively receive information, engage in experiential learning, and reflect on their digital behavior, while also enabling the research team to document both quantitative changes and qualitative developments in students' digital ethics awareness.

3. Results and Discussion

The Civilized School Program was implemented at SMA Negeri 2 Plus Panyabungan and involved 30 students from Grades X–XII, five accompanying teachers, and school representatives. The program was conducted over a one-month period using an educational-participatory approach consisting of digital ethics counseling, healthy digital communication training, cyberbullying case simulations, reflective discussions, positive digital campaigns, and the establishment of student character ambassadors. These activities were designed to strengthen students' moral awareness, social responsibility, and capacity to develop healthier and more respectful patterns of digital communication within the school environment.

Program evaluation employed both quantitative and qualitative approaches. The quantitative evaluation used pretest and posttest instruments based on a five-point Likert scale to assess five dimensions: digital communication ethics, awareness of the consequences of cyberbullying, social empathy in digital environments, responsibility in social media use, and self-control in digital communication. The qualitative evaluation involved behavioral observation, participant reflections, activity documentation, and interviews with accompanying teachers. The combination of these approaches enabled the program team to examine not only changes in students' measured responses but also their experiences and observed behavioral development during the intervention.

3.1. Improvement in Students' Understanding of Digital Morals and Ethics

The quantitative evaluation indicated an overall improvement in students' scores across all five indicators following participation in the Civilized School Program. As presented in Table 1, the average score increased from 60.1% at pretest to 87.1% at posttest, representing a 27.0 percentage-point increase.

Table 1. Comparison of Pretest and Posttest Scores on Students' Understanding of Digital Morals and Ethics

Indicator	Pretest (%)	Posttest (%)	Increase (percentage points)
Understanding of digital communication ethics	58.2	86.1	27.9
Awareness of the consequences of cyberbullying	61.4	89.6	28.2
Social empathy in digital environments	63.1	87.3	24.2
Responsibility in social media use	60.5	88.1	27.6
Self-control in digital communication	57.3	84.2	26.9
Average	60.1	87.1	27.0

The increase across all indicators suggests that the intervention was associated with substantial improvement in students' self-reported understanding and awareness of responsible digital behavior. The largest increase was observed in awareness of the consequences of cyberbullying, which rose by 28.2 percentage points, followed by understanding of digital communication ethics, which increased by 27.9 percentage points. Responsibility in social media use increased by 27.6 percentage points, while self-control in digital communication increased by 26.9 percentage points. The smallest increase was observed in social empathy in digital environments, although this indicator still demonstrated a considerable improvement of 24.2 percentage points.

The relatively larger increase in students' awareness of cyberbullying consequences and responsibility in social media use may indicate that these dimensions were particularly responsive to the program's explicit instructional content, case

simulations, and discussions of concrete digital situations. During the intervention, students were exposed to examples of harmful comments, teasing, digital conflict, and irresponsible information sharing, allowing abstract ethical principles to be connected with situations that could occur in their everyday online interactions. This experiential orientation may have helped students recognize more clearly the potential consequences of their digital actions for themselves and others.

The comparatively smaller increase in social empathy should not be interpreted as an absence of progress. Rather, it may indicate that affective and interpersonal dimensions of digital character development require more sustained opportunities for reflection, interpersonal engagement, and behavioral practice. Empathy involves more than recognizing that a particular online action is inappropriate; it also requires the ability to understand and consider another person's feelings and perspective. Therefore, the finding suggests that future implementation of the Civilized School Program could provide more frequent peer interaction, perspective-taking exercises, reflective activities, and follow-up mentoring specifically focused on empathy and social awareness.

This interpretation is consistent with the broader conceptualization of social-emotional learning, in which social awareness, empathy, self-management, and responsible decision-making are interconnected competencies rather than isolated forms of knowledge. Within the context of digital citizenship, these competencies are particularly relevant because students' online behavior involves not only technical skills but also decisions about how their words and actions affect others. Accordingly, digital ethics education should extend beyond rules concerning what students should or should not do online and provide opportunities for students to reflect on the interpersonal consequences of their digital behavior.

The findings also reinforce the importance of self-control as a component of responsible digital behavior. Bukhori et al. (2024), in a study involving 2,763 Indonesian high school students, found that self-control was related to cyberbullying behavior and could function as a protective factor against adolescents' engagement in cyberbullying. Their findings support the relevance of strengthening self-regulation when addressing problematic digital behavior among adolescents. In the present program, the 26.9 percentage-point increase in the self-control indicator suggests that activities involving reflection, discussion, and examination of digital conflict may have helped students become more aware of the need to regulate their responses in online interactions.

At the same time, the results should be interpreted within the methodological scope of the program. Because the evaluation employed a descriptive pretest-posttest comparison without a control group and did not apply inferential statistical testing, the observed increases should not be interpreted as statistically significant effects or as definitive evidence that the intervention alone caused the changes. Instead, the findings provide descriptive evidence of positive changes among the participating students following their involvement in the program. This distinction is important for a

community engagement study because the purpose of the evaluation was primarily to document program-related changes and assess whether the intervention objectives were achieved within the participating group.

The quantitative findings are further supported by the qualitative observations and participant reflections collected during the program. The combination of counseling, case simulations, reflective discussions, and digital campaigns provided students with repeated opportunities to connect moral values with practical digital communication. Thus, the contribution of the Civilized School Program was not limited to increasing students' awareness of digital ethics but also involved creating a learning environment in which responsibility, empathy, courtesy, and self-control could be discussed and practiced.

Overall, the findings indicate that the Civilized School Program achieved its immediate objective of strengthening students' understanding and awareness of digital morals and ethics. The average score increased by 27.0 percentage points across the five assessed dimensions, with improvements observed in digital communication ethics, cyberbullying awareness, social empathy, social media responsibility, and self-control. Nevertheless, the comparatively smaller improvement in empathy highlights the importance of continued reinforcement and follow-up activities, particularly for affective and interpersonal dimensions of digital character. These findings support the value of integrating digital literacy with moral education, social-emotional learning, reflective practice, and school-based character development rather than treating digital citizenship as a purely technical competency.

3.2. Transformation of Students' Digital Communication Behavior and Social Interaction

Qualitative evaluation based on classroom observations, student reflections, and interviews with accompanying teachers indicated positive changes in students' digital communication behavior after participation in the Civilized School Program. Teachers consistently reported that students became more cautious in posting and commenting on social media, more selective in sharing information, and more respectful toward peers' opinions in both online and face-to-face interactions. These changes suggest that the program influenced not only students' awareness of digital ethics but also their everyday communication practices within the school environment.

A key transformation was observed in students' understanding of harmful digital communication. Before the intervention, some students considered teasing or mocking peers on social media as harmless jokes. However, after participating in reflective discussions and cyberbullying case simulations, many students began to recognize that such behavior could cause emotional distress and damage peer relationships. This shift is important because harmful online communication is often not driven by an explicit intention to hurt others, but rather by a lack of awareness of how messages are received. The program therefore helped students distinguish between intended humor and experienced harm, which is a critical aspect of digital ethics.

The case simulation activities played a central role in facilitating this change. By presenting realistic scenarios involving teasing, exclusion, negative comments, and online conflict, students were encouraged to analyze situations from multiple perspectives. They were asked to consider not only the viewpoint of the person posting content but also the emotional experience of the recipient and the role of bystanders. This perspective-taking process is essential in digital environments, where the absence of immediate face-to-face feedback can reduce awareness of the emotional impact of communication.

Student reflections further indicated a process of moral reappraisal. Behaviors previously seen as normal jokes were reconsidered in light of their potential social and emotional consequences. This suggests that digital moral values are more effectively internalized when students are actively engaged in analyzing real-life or simulated situations rather than passively receiving rules or instructions. Through discussion and reflection, students were able to connect ethical principles with concrete communication experiences, which strengthened their ability to evaluate their own behavior.

This finding aligns with recent research on experiential learning in digital literacy education. Zou et al. (2024) found that active engagement in simulated social media situations leads to stronger learning outcomes compared to passive instruction. Their study emphasizes that youth benefit more from interactive and experience-based learning environments that allow them to practice decision-making in realistic digital contexts. Similarly, Yang and Lu (2024) demonstrated that experience-based, multi-role learning models in bullying prevention can enhance empathy and problem-solving skills by allowing students to experience situations from different perspectives. Although the Civilized School Program did not use a virtual platform, its use of case simulations and reflective discussions similarly encouraged students to actively engage with ethical dilemmas in communication.

The observed transformation can therefore be understood as a shift from norm awareness to ethical judgment in practice. Students were not only introduced to rules about polite communication but were also trained to evaluate whether specific messages or comments could potentially harm others. This ability is essential in digital environments, where situations are often ambiguous and require personal judgment rather than simple rule-following. Digital ethics in this sense involves empathy, self-regulation, perspective-taking, and responsibility in anticipating the consequences of one's actions.

Teachers also observed that these behavioral changes extended beyond online interactions. Students appeared more respectful in face-to-face communication within the school environment, showing greater attentiveness when listening to peers and more careful expression of opinions. Although these observations are qualitative and not based on standardized behavioral measurement, they suggest that digital character education may have spillover effects into broader interpersonal behavior. The values

emphasized in the program – respect, empathy, responsibility, and self-control – are not limited to digital spaces but are relevant to all forms of social interaction.

This broader impact highlights the importance of viewing digital ethics as part of a civilized school culture rather than a standalone topic. In practice, students' online and offline interactions are closely interconnected. Conflicts that begin in social media can continue in classroom discussions, while school-based disagreements may extend into digital platforms. Therefore, strengthening digital communication ethics requires an integrated approach that connects classroom learning, school culture, and students' daily social interactions.

Within SMA Negeri 2 Plus Panyabungan, the program demonstrated the role of schools as environments for developing both academic and moral competencies. Schools are not only places for knowledge transfer but also spaces where students learn how to communicate responsibly, manage conflict, and consider the impact of their actions on others. The involvement of teachers and student character ambassadors further supported this process by providing continuous reinforcement of positive communication norms beyond formal program sessions.

Overall, the qualitative findings complement the quantitative results presented earlier. While the pretest-posttest data showed measurable improvements in students' understanding of digital ethics, the qualitative evidence provides insight into how these changes were reflected in actual communication behavior. Together, these findings suggest that the Civilized School Program contributed to a shift in how students perceive digital communication – from a purely functional activity to a form of moral and social responsibility.

However, these findings should be interpreted as evidence of observed short-term behavioral change, not long-term transformation. The absence of longitudinal tracking means that the sustainability of these changes cannot yet be confirmed. Continued mentoring, reinforcement through school activities, peer-led initiatives, and integration into daily school culture are therefore necessary to ensure that the emerging patterns of respectful and responsible digital communication are maintained over time.

3.3. Effectiveness of the Participatory Approach in Developing Digital Character

An important finding of the Civilized School Program is the role of the participatory approach in enhancing students' engagement in digital character development. Unlike conventional instruction where students primarily receive information, this program positioned students as active participants through case simulations, group discussions, reflective activities, digital campaigns, and the creation of educational media. This design enabled students to critically examine digital communication issues, express their perspectives, and translate ethical values into concrete actions within their school environment.

Student engagement was particularly evident during the development of campaign materials. Students showed strong enthusiasm in designing digital posters,

creating anti-cyberbullying messages, and disseminating positive content through school social media platforms. These activities encouraged students to move beyond understanding digital ethics as abstract rules toward actively practicing and promoting responsible digital behavior among peers. In this way, participation functioned not only as a learning method but also as a mechanism for fostering ownership of the program.

A tangible outcome of this process was the production of 12 educational posters addressing digital communication ethics, cyberbullying prevention, and responsible social media use. These posters were shared through school social media and displayed in classrooms as part of the Civilized School Campaign. This output is significant because students were not only consumers of digital content but also creators and communicators of ethical messages. Such involvement reflects a shift toward more active and responsible digital citizenship.

The program also established student character ambassadors who served as peer promoters of positive digital behavior. Their role was intended to extend the program beyond formal sessions by reinforcing respectful communication, empathy, and responsible online conduct within student peer groups. Although the study did not include long-term evaluation of this mechanism, its establishment represents an important step toward sustaining program values through student-led initiatives.

These findings align with broader perspectives on digital citizenship education, which emphasize that digital competencies are developed not only through formal instruction but also through practice, social interaction, and contextual learning. UNESCO (2023) highlights that while students often acquire digital skills through self-directed experiences, schools and teachers remain essential in guiding ethical and responsible use of technology. The Civilized School Program contributes to this approach by creating structured opportunities for students to actively participate in shaping positive digital norms within their school.

The participatory approach is particularly important because digital ethics cannot be effectively developed through instruction alone. While lectures and rules may increase awareness, they do not necessarily provide opportunities for students to apply ethical reasoning in real or simulated situations. In contrast, activities such as case analysis, group discussion, reflection, and campaign creation require students to interpret situations, negotiate meanings, and make decisions collaboratively. This process helps connect knowledge, reflection, and action, which is essential in character formation.

This perspective is supported by recent research on experiential learning in digital literacy. Zou et al. (2024) found that active engagement in social media literacy activities leads to stronger learning outcomes compared to passive learning methods. The Civilized School Program reflects this principle by emphasizing experiential and collaborative learning rather than one-way instruction.

The peer-based dimension of the program is also highly relevant to adolescent development. Since adolescents are strongly influenced by peer relationships, involving students as ambassadors and campaign creators helps embed positive norms within their social environment. Instead of relying solely on teacher authority, the program encourages students to reinforce ethical behavior among peers using familiar language and shared experiences. This peer-driven mechanism increases the relevance and accessibility of digital ethics messages.

The production of 12 posters further illustrates the shift from digital literacy as consumption to digital citizenship as participation. Rather than only learning how to use digital media, students actively contributed to shaping the digital environment by producing content that promotes empathy, responsibility, and respectful communication. This process allowed ethical values to be expressed through meaningful digital practice.

In addition, the participatory approach contributed to strengthening the broader school culture of digital ethics. The program integrated classroom activities, student campaigns, peer ambassadors, and teacher involvement, creating multiple channels for reinforcing consistent behavioral norms. Such integration is important because digital character development requires continuous reinforcement rather than isolated interventions.

However, the findings should be interpreted with caution. While students demonstrated high engagement and produced meaningful outputs, the study did not use a control group or experimental design to isolate the specific effect of participation. Therefore, it cannot be concluded that the participatory approach is superior to other instructional methods. Instead, the evidence suggests that participation enhanced engagement and facilitated the practical application of digital ethics within the school context.

Overall, the Civilized School Program demonstrates that combining digital literacy, character education, experiential learning, and peer participation can create a more active and meaningful learning environment. The production of educational posters and the formation of student ambassadors highlight the potential of student involvement in reinforcing positive digital norms. This participatory model offers a promising approach for integrating individual character development with broader school culture transformation in the context of digital citizenship education.

3.4. Contribution of the Program to Character-Based Digital Education

The findings of the Civilized School Program contribute to the broader development of character-based digital education by highlighting the importance of integrating digital literacy with moral development, social-emotional competencies, and school culture. In contemporary educational contexts, digital citizenship is no longer limited to technical skills in using digital platforms, but also includes how students make ethical decisions, communicate responsibly, respond to online risks, and participate

constructively in digital communities. This expanded understanding positions digital education as both a cognitive and character-forming process.

The Civilized School Program addresses this need through an integrated approach that combines digital literacy, moral education, empathy development, self-regulation, and participatory learning within the school environment. Rather than treating digital ethics as a separate or additional topic, the program embeds it within students' broader character formation. The five assessed dimensions—digital communication ethics, awareness of cyberbullying consequences, empathy, responsibility in social media use, and self-control—reflect this holistic orientation. The observed improvements across all dimensions indicate that digital character education can be developed as a multidimensional process involving knowledge, attitudes, and behavioral awareness.

This approach aligns with broader discussions on digital citizenship in the Asia-Pacific region. UNESCO (2023) emphasizes that students often develop digital competencies through both formal and informal learning experiences, while teachers play a crucial role in guiding them toward safe, responsible, and meaningful digital engagement. The report further highlights the importance of strengthening teachers' capacity to support students' digital citizenship development. In this regard, the Civilized School Program extends this perspective by positioning the school not only as a provider of digital skills but also as a social space where students can practice ethical communication, reflect on digital behavior, and internalize shared norms of responsibility.

A key contribution of the program lies in its integration of individual learning and collective participation. Quantitative results showed improvements in students' understanding and awareness, while qualitative findings indicated behavioral shifts such as more cautious communication, more selective information sharing, and increased respect for peers' opinions. These changes were reinforced through student-led activities, including the production of 12 educational posters and the establishment of student character ambassadors. Together, these elements demonstrate how individual learning can be strengthened through collective action, enabling students to actively participate in shaping a more positive digital culture within their school.

This integration is important because digital ethics cannot be sustained through knowledge transmission alone. Students may understand the principles of responsible digital behavior but still struggle to apply them in real-life interactions. The program therefore combined cognitive learning with simulation, reflection, peer discussion, and campaign-based activities. This design allowed students to move from knowing digital ethics to practicing and expressing digital ethics in real contexts. Such experiential engagement is essential in character education, where values are strengthened through repetition, social reinforcement, and practical application.

The program also emphasizes the role of school culture and peer influence in shaping digital behavior. The student character ambassadors and peer-led campaigns functioned as mechanisms for reinforcing positive communication norms within the student community. This peer-based approach complements the role of teachers and school administrators, creating a shared responsibility for fostering ethical digital behavior. In this model, digital character education becomes embedded in everyday school interactions rather than confined to formal instruction.

Contextual relevance is another important contribution. The program was implemented in SMA Negeri 2 Plus Panyabungan and designed based on students' real digital communication experiences. Activities were grounded in situations familiar to students, such as communication in class groups, responses to online comments, and decisions about sharing information. This contextualization made ethical discussions more meaningful and directly applicable to students' daily digital lives.

Overall, the Civilized School Program reflects a shift from a technology-centered approach to a character-centered approach in digital education. While technical competence remains important, the program emphasizes responsibility, empathy, self-control, respect, and awareness of social consequences as essential components of digital participation. These values were integrated through counseling, experiential learning, reflection, peer engagement, and student-led initiatives.

However, the contribution of the program should be interpreted within its limitations. The intervention involved a small, purposively selected group of students in a single school and used a descriptive pretest-posttest design without a control group or long-term follow-up. Therefore, its findings should be understood as a contextual and exploratory contribution, rather than a fully generalizable model. Further studies involving multiple schools, longer observation periods, and more rigorous comparative designs are needed to validate and expand its applicability.

In conclusion, the Civilized School Program demonstrates the potential of character-based, participatory, and school-centered digital education in addressing the moral and social dimensions of adolescents' digital lives. Its main contribution lies in integrating digital literacy, ethical values, social-emotional learning, experiential activities, peer participation, and school culture into a unified framework for strengthening digital character among secondary school students.

3.5. Social Impact, Challenges, and Program Sustainability

The Civilized School Program generated several positive social outcomes within the school environment. Based on teacher observations, students showed increased awareness of respectful communication, greater sensitivity to peers' feelings, and more caution in sharing information through social media and class communication groups. These findings complement the quantitative results and indicate that the program influenced not only students' knowledge of digital ethics but also their everyday communication practices within the school community.

The program contributed to the development of a more human-centered and responsible digital communication culture. Rather than focusing solely on rules and restrictions, the intervention emphasized the social consequences of online behavior and encouraged students to consider empathy, dignity, and responsibility in digital interactions. This approach is particularly relevant in Indonesia, where internet use among adolescents is high and closely linked to social interaction. UNICEF Indonesia's Baseline Study 2023 reported that most children use the internet daily for communication and entertainment, while also facing risks such as cyberbullying and exposure to inappropriate content. However, only 37.5% of children had received guidance on online safety, highlighting the importance of school-based digital ethics education.

A key social outcome of the program was the establishment of student character ambassadors, who acted as peer role models in promoting positive digital behavior. This peer-based approach helped reinforce program messages beyond formal sessions and supported the development of shared communication norms among students. It aligns with UNESCO's 2023 findings that digital citizenship is often shaped not only in classrooms but also through peer interaction and everyday digital experiences, while schools remain essential in providing structured guidance and ethical grounding.

The sustainability of the program was further supported by student-led digital campaigns, in which participants produced 12 educational posters on topics such as cyberbullying prevention, responsible social media use, and ethical communication. This activity positioned students as active contributors to shaping a positive digital culture rather than passive recipients of instruction. Similar approaches can be seen in UNICEF Indonesia's #JagaBareng campaign, which involved young people in promoting online safety messages through schools and social media, reaching millions of users nationwide. Although the scale differs, both initiatives demonstrate the value of youth participation in strengthening digital ethics awareness.

Despite these positive outcomes, several challenges were identified. First, the short duration of the intervention limited the ability to assess long-term behavioral change. While immediate improvements in awareness and communication practices were observed, it remains unclear whether these changes will persist over time. Character development requires continuous reinforcement, making long-term evaluation essential.

Second, parental involvement was limited during implementation. This is a significant limitation because adolescents' digital behavior is shaped not only by school environments but also by family guidance. Strengthening collaboration between schools and parents is therefore necessary to ensure consistent messages regarding responsible digital behavior at home and at school.

Third, differences in students' initial digital literacy levels influenced their responsiveness to the program. Students with more experience in digital communication

adapted more quickly, while others required additional support. This suggests the need for differentiated instructional strategies in future implementations.

To address these challenges, several strategies are recommended. First, digital ethics education should be integrated into routine school activities, including classroom learning, counseling sessions, extracurricular programs, and school communication platforms. This would ensure continuous reinforcement rather than one-time exposure.

Second, the role of student character ambassadors should be strengthened through structured mentoring and clearer responsibilities, such as facilitating peer discussions, supporting anti-cyberbullying initiatives, and promoting positive digital content within student communities. This would help institutionalize peer-led character education.

Third, school–family collaboration should be enhanced through digital parenting workshops, informational materials, and joint awareness campaigns. Such collaboration would align school-based guidance with parental supervision and support.

Fourth, future programs should include long-term monitoring and follow-up evaluation to assess whether improvements in digital ethics and behavior are sustained. This may involve teacher observations, peer assessments, and behavioral indicators in addition to self-reported data.

From a broader perspective, the findings suggest that digital character education should be understood as a continuous and multidimensional process. Digital literacy provides technical skills, while character education shapes ethical decision-making. Social-emotional learning fosters empathy and self-control, and experiential activities allow students to practice responsible behavior in real contexts. The Civilized School Program integrated these elements through discussions, simulations, student campaigns, and peer engagement.

Overall, the program offers a practical framework for school-based digital character development that combines individual awareness with collective participation. Its sustainability depends on institutional support, teacher involvement, student leadership, parental engagement, and ongoing evaluation. Rather than a one-time intervention, it should be viewed as an initial step toward building a long-term culture of ethical digital behavior in schools.

In conclusion, the Civilized School Program demonstrates that strengthening adolescents' digital morals requires more than teaching safe technology use. It requires the creation of a supportive social environment where respect, empathy, responsibility, and self-control are consistently practiced and reinforced. By integrating digital literacy with character education and peer participation, the program provides an adaptable model that can be further developed and applied in other school contexts.

4. Conclusion

The Civilized School Program implemented at SMA Negeri 2 Plus Panyabungan showed positive contributions to strengthening students' digital morals and ethics. Quantitative results indicated an increase in the average score across five indicators – digital communication ethics, awareness of cyberbullying impacts, social empathy, responsibility in social media use, and self-control in digital communication—from 60.1% at pretest to 87.1% at posttest, representing an improvement of 27.0 percentage points. In addition, qualitative findings revealed more respectful communication practices, increased caution in sharing information, and greater awareness of the social consequences of digital behavior among students.

These findings suggest that integrating digital literacy, character education, experiential learning, and social-emotional reflection can be a promising approach to developing students' digital character. Program activities such as case simulations, reflective discussions, student-led digital campaigns, and the involvement of student character ambassadors encouraged active participation in promoting positive digital norms. The production of educational posters further demonstrated that students can play an active role in shaping a more responsible and ethical school digital culture, not only as learners but also as contributors.

However, the results should be interpreted in light of several limitations, including the small sample size, single-school setting, and absence of a control group and long-term follow-up. Therefore, the observed improvements reflect short-term changes associated with program participation rather than confirmed long-term or causal effects. Future programs should include broader implementation, sustained mentoring, stronger collaboration with parents, and longitudinal evaluation to assess the durability and wider applicability of the approach.

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Bibliography

- Aini, S., & Rahardjo, W. (2023). Perilaku cyberbullying pada remaja ditinjau dari empati dan regulasi emosi. *Jurnal Ilmu Perilaku*, 7(2), 121-139. <https://doi.org/10.25077/jip.7.2.121-139.2023>
- Bukhori, B., Nuriyyatiningrum, N. A. H., Zikrinawati, K., Liem, A., Wahib, A., & Darmu'in. (2024). Determinant factors of cyberbullying behaviour among

- Indonesian adolescents. *International Journal of Adolescence and Youth*, 29(1), Article 2295442. <https://doi.org/10.1080/02673843.2023.2295442>
- CASEL. (2023). *What is the CASEL Framework?* Fundamentals of CASEL.
- Common Sense Media. (2023, March 30). *Teens and mental health: How girls really feel about social media*. <https://www.commonsensemedia.org/research/teens-and-mental-health-how-girls-really-feel-about-social-media>
- Hinduja, S., & Patchin, J. W. (2022). Cyberbullying: Identification, prevention, and response. *Cyberbullying Research Center*. <https://cyberbullying.org>
- Indonesia, U. (2022). *Digital literacy and online safety among Indonesian adolescents*. <https://www.unicef.org/indonesia/reports>
- International Commission on the Futures of Education. (2021). Reimagining our futures together: A new social contract for education. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000379707>
- Jones, L. M., & Mitchell, K. J. (2021). Defining and measuring youth digital citizenship. *New Media & Society*, 23(5), 1205–1223. <https://doi.org/10.1177/1461444820908014>
- Kowalski, R. M., & Limber, S. P. (2021). Electronic bullying among adolescents: Social and emotional consequences. *Journal of Adolescent Health*, 69(3), 367–373. <https://doi.org/10.1016/j.jadohealth.2021.04.021>
- Livingstone, S., Third, A., & Lansdown, G. (2020). Children's rights in the digital environment: A challenging terrain for evidence-based policy. In L. Green, D. Holloway, K. Stevenson, T. Leaver, & L. Haddon (Eds.), *Routledge companion to digital media and children* (pp. 378–389). Routledge. <https://doi.org/10.4324/9781351004107-36>
- Marciano, L., Schulz, P. J., & Camerini, A. L. (2022). Cyberbullying perpetration and social-emotional competencies in adolescents. *International Journal of Environmental Research and Public Health*, 19(3), 1286. <https://doi.org/10.3390/ijerph19031286>
- OECD. (2021). *OECD Skills Outlook 2021: Learning for life*. OECD Publishing. <https://doi.org/10.1787/0ae365b4-en>
- OECD. (2023). *OECD Digital Education Outlook 2023: Towards an effective digital education ecosystem*. OECD Publishing. <https://doi.org/10.1787/c74f03de-en>
- Ott, M. B., Meusbarger, K. M., & Quenzel, G. (2023). Adolescents' participation opportunities and student well-being in school. *Frontiers in Education*, 8. <https://doi.org/10.3389/feduc.2023.1111981>
- Prasetyo, M. A. M. (2022). School culture and character education implementation in Indonesian secondary schools. *Cakrawala Pendidikan*, 41(2), 312–325. <https://doi.org/10.21831/cp.v41i2.48211>
- Purboningsih, E. R., Massar, K., Hinduan, Z. R., Agustiani, H., Ruiters, R. A. C., & Verduyn, P. (2023). Perception and use of social media by Indonesian adolescents and parents: A qualitative study. *Frontiers in Psychology*, 13, Article 985112. <https://doi.org/10.3389/fpsyg.2022.985112>

- Sanoff, H. (2011). Multiple Views of Participatory Design. *Focus*, 8(1).
<https://doi.org/10.15368/focus.2011v8n1.1>
- Santhoso, F. H., Marvianto, R. D., & Purwanto, B. (2023). An adaptation and validation of the Indonesian version of the Bullying and Cyberbullying Scale for Adolescents. *Gadjah Mada Journal of Psychology*, 9(1), 21–37.
<https://doi.org/10.22146/gamajop.70527>
- UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. UNESCO Publishing. <https://unesdoc.unesco.org/>
- UNESCO. (2023). Digital citizenship in Asia-Pacific: Translating competencies for teacher innovation and student resilience. *UNESCO Office Bangkok and Regional Bureau for Education in Asia and the Pacific*.
<https://unesdoc.unesco.org/ark:/48223/pf0000385721>
- UNICEF Indonesia. (2024, March 4). #JagaBareng: Young people champion online safety campaigns for children. <https://www.unicef.org/indonesia/child-protection/stories/jagabareng-young-people-champion-online-safety-campaigns-children>
- UNICEF Indonesia. (2025, February). *Online knowledge and practice of children in Indonesia: A baseline study 2023*. <https://www.unicef.org/indonesia/child-protection/reports/online-knowledge-and-practice-children-indonesia-baseline-study-2023>
- World Health Organization. (2022). *World mental health report: Transforming mental health for all*. World Health Organization. <https://doi.org/10.37774/9789240049338>
- Yang, K.-H., & Lu, Y. (2024). Combating school bullying through multi-role experience-based virtual scenario learning model: Assessing empathy, problem-solving, and self-efficacy from a multi-stakeholder perspective. *Heliyon*, 10(10), Article e31044.
<https://doi.org/10.1016/j.heliyon.2024.e31044>
- Zhu, Y., Zhang, H., & Liu, X. (2024). Experiential learning and digital citizenship education among adolescents. *Education and Information Technologies*, 29(4), 5121–5140. <https://doi.org/10.1007/s10639-023-12044-8>
- Zou, W., Purington Drake, A., Masur, P. K., Whitlock, J., & Bazarova, N. N. (2024). Examining learners' engagement patterns and knowledge outcome in an experiential learning intervention for youth's social media literacy. *Computers & Education*, 216, Article 105046. <https://doi.org/10.1016/j.compedu.2024.105046>