

# e-Bangi THE ROLE OF CIVIC EDUCATION IN CULTIVATING RESPONSIBLE DIGITAL COMMUNICATION AMONG ELEMENTARY SCHOOL STUDENTS

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## **THE ROLE OF CIVIC EDUCATION IN CULTIVATING RESPONSIBLE DIGITAL COMMUNICATION AMONG ELEMENTARY SCHOOL STUDENTS**

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**Abstract:** This study investigates the strategic role of Civic Education in cultivating responsible digital communication among elementary school students in Indonesia through a comprehensive mixed methods approach. The research employed sequential explanatory design, combining quantitative surveys of 50 students from four elementary schools in Bandung with qualitative in-depth interviews of 15 civic education teachers and 20 parents, supplemented by participatory classroom observations. The study utilized Digital Citizenship Theory and Value-Based Learning framework to analyze the systematic integration of digital ethics into formal educational structures. Quantitative findings revealed significant variations in digital ethics awareness across multiple dimensions, with privacy consciousness achieving the highest score (M=4.5) while cybersecurity awareness recorded the lowest (M=3.2), indicating critical knowledge gaps requiring immediate pedagogical intervention. Qualitative analysis identified contextual learning approaches (80%) and simulation-based strategies (67%) as dominant pedagogical methods employed by teachers, demonstrating effective application of constructivist learning principles. The integration of cognitive, affective, and psychomotor dimensions through value-based learning demonstrated remarkable effectiveness in internalizing digital citizenship values, particularly through collaborative project methodologies and ethical scenario discussions. Collaborative supervision mechanisms between educational institutions and families created a comprehensive digital education ecosystem, with 90% of parents implementing time-based restrictions and 80% controlling content access through technological monitoring systems. Students demonstrated successful internalization of civic values in digital contexts, particularly in anti-hoax awareness, digital empathy development, and responsible information sharing practices. However, the study also identified critical structural gaps in formal curriculum frameworks and limited teacher pedagogical competencies in contemporary digital literacy instruction methodologies. These empirical findings underscore the urgent necessity for comprehensive curriculum reformation and systematic teacher professional development programs to optimize civic education's transformative potential in fostering ethical and responsible digital communication behaviors among Indonesian elementary school students.

### **Keywords:**

Civic Education, Digital Citizenship, Netiquette, Elementary School Students, Responsible Digital Communication.

### **Introduction**

The development of digital technology that is very massive and globalized includes global communication with geographical dividing lines and cultural boundaries that have different ethical equivalents in digital media. Digital interactions that occur between genders, between groups in other social societies, can

tell all kinds of information without limits. The fast-moving digital era has made the gadget screen no longer just a communication tool for adults, but has become a window to the world for children in elementary school. This phenomenon, often called *digital native*, illustrates how today's children grow up with technology from the moment they open their eyes. However, behind the ease of access to information and entertainment, there are risks that lurk and often avoid supervision. They enter the digital realm without adequate knowledge, making them vulnerable to various ethical and cyber security challenges.

According to (Fahrimal, 2018) Ethics of communication on the Internet or *Netiquette* It can be interpreted as conventions and rules in using internet media as a tool of interaction and communication that accompanies users by using media on the internet. Although netiquette is not written, it is necessary for internet users to be able to obey rules that lead to ethics and morals in order to maintain comfort, peace, and peace in using social media (Fahrimal, 2018). Looking at some of the phenomena that occur about communication ethics on social media today, people believe that the negative impact of technological advances is dominating, and that such negative impact can threaten the politeness of communicating on social media. As a result, this can have a negative impact on people who use social media, especially the millennial generation (Ahyati et al., 2024). With these rapid technological advancements, users may be influenced to adopt moral values. This can result in not only linguistic civility in communication, but it can also lead to counter-communication that can lead to denial of the law.

The simple issues that millennials face in their daily lives online are often overlooked, even though the impact can be very serious. Starting from sharing photos or videos without permission, which can violate the privacy of yourself and others, to interactions with strangers, which have the potential to trigger bullying or even cybercrime. Furthermore, they can also be targeted for inappropriate content or messages, which can interfere with their psychological development. This condition shows that there is a gap between children's technical ability to use gadgets and their ethical understanding in cyberspace (Faiz & Kurniawaty, 2022). According to (Öztürk, 2021), social media can be interpreted as an internet medium used by individuals as users to interact, share, collaborate, and connect with fellow users who can build common bonds digitally. Digital interactions carried out by users using various digital devices, can be seen from a survey conducted by Hootsuite: We Are Social in 2022, since the total population of Indonesia is the total population (total population): 277.7 million (in 2021: 274.9 million/up 1%), with age details indicating that the number of individuals over 13 years old amounted to 210.3 million, 18 years old with a total of 187.1 million and 16-64 years old with a total of 179.7 million. Connected Mobile devices: 370.1 million. Internet users: 204.7 million. Active social media users: 191.4 million, while the average daily time in internet use: 8 hours, 36 minutes. At this time with the total population continuing to grow, there will be more and more gadget users and accessing the internet online is undeniably also at the age of 9-12 years, namely children. (Wulandah, 2023a)

Some of the community's online activities include violations of digital ethics committed by internet users in Indonesia. This has an impact on the value or score of Indonesia's politeness in digital media and has reached 76%, the data was taken based on a survey in 2020 conducted by Microsoft entitled "*Digital Civility Index*" (Ahyati et al., 2024). The report is based on a survey of 16,000 respondents in 32 countries in April-May 2020. The results show that the level of civility of Indonesian netizens is very low, which ranks 29th out of 32 countries. (Maifianti et al., 2021). This should be considered important for researchers to examine the problems that arise and to understand and find the right solution so that this 76% figure can be minimized. Especially for the younger generation who are the successors of a nation. This shows that Indonesia's digital politeness index is ranked at the bottom with a score of 76%, data from We Are Social 2024 Children aged 9-12 years are already active on social media with an average of being able to access for approximately 8 hours per day. As well as a report from the Ministry of Communication and Information that the level of digital literacy is still low in the medium category. This fact indicates the urgency of research based on the PKn curriculum to form responsible digital communication behavior, not just increase technological literacy.

Previous research has highlighted the importance of value education in dealing with the negative impacts of technology (Faiz & Kurniawaty, 2022), as well as the effectiveness of digital education programs such as *The Internet Is Awesome* (Jones et al., 2024; Vallés-Peris & Domènech, 2024). However, these

interventions have not been able to significantly change digital communication behaviors related to privacy, politeness, and digital ethical discussions. On the other hand, the approach to digital citizenship is based on democracy and *Responsible Research and Innovation* (RRI) proposed by (Febriani et al., 2025) provides a good conceptual direction, but has not been implemented conceptually in Indonesia, especially through PKn learning subjects in elementary schools. In fact, elementary school students are a strategic group that is in the phase of character formation and is intensely exposed to the digital world. This research offers novelty by integrating PKn learning as an instrument for internalizing civic values in the digital realm, so as to produce an approach that is not only cognitive, but also affective and contextual according to the character of Indonesian culture.

Social ethics in cyberspace or known as *netiquette*, is a set of rules for communicating and interacting using the internet, which is not much different from ethics in the real world (Ahyati et al., 2024). (Dawitri & Amara, 2023) emphasizing that digital literacy, especially in the use of social media, is a skill that must be mastered by individuals in order to interact wisely in cyberspace. Formal education, especially Civic Education (PKn), has a strategic role to fill this gap. PKn not only teaches rights and obligations as citizens, but also instills fundamental values such as good manners, honesty, responsibility, and respect for others. These values are the crucial foundation in shaping children's character in the real world and the digital world. Relevant PKn learning can bridge the gap between the physical and cyber worlds, by teaching students to behave like "good digital citizens" who are ethical, wise, and responsible.

The main purpose of this paper is to explore in depth how the integration of PKn learning can be an effective instrument in increasing awareness of digital communication ethics in elementary school students. With a qualitative method of exploring case studies, researchers observe this phenomenon from a qualitative perspective, this study is expected to explore the processes, challenges, and successes in shaping children's digital characters from an early age. The results of this research are expected to be valuable references for educators, parents, and policymakers in designing an adaptive, relevant, and sustainable curriculum.

*Netiquette* or *cyber-ethic* is a very important thing to study further. Ethics in cyberspace (*netiquette*) is different from other forms of ethics and needs special study because the communication process that occurs uses technology to communicate even though the communication process in cyber media replicates the form of communication in the real world. So that it can prepare future generations who are capable and ethical in the digital era.

## Literature Review

### Civic Education

Squirt (Winataputra & Budimansyah, 2007) interpret *Civic education* as ".....*The foundational course work in school designed to prepare young citizens for an active role in their communities in their adult lives*". Or a basic subject in school that is designed to prepare young citizens, so that later after adulthood they can play an active role in their society. Citizenship education is broadly formulated to include the process of preparing the younger generation to take on the role and responsibility of citizens, and in particular, the role of education includes schooling, teaching and learning in the preparation of the citizen (Kerr 1999). Thus, civic education encompasses learning experiences at school and outside of school, as it happens in the family environment, in religious organizations, in community organizations, and in the media (Retnasari, 2022). This civic education includes four parts: civic knowledge (knowledge of citizenship and democratic governance), cognitive civic skills (*Cognitive Civic Skills*), participatory citizenship skills (*participatory civic skills*), and the character of citizenship (*virtues and attitudes that characterize democratic citizen*) (Hassan et al., 2023).

### Digital Citizenship

In this digital era, Civic Education is required to develop: 1) responsible character in the use of digital media and understanding rights and obligations in cyberspace; 2) Think critically about the information circulating, so that it is not easily provoked by fake news; 3) Understand democratic principles, such as freedom of opinion that still respects the rights of others in the digital space; 4) and Using technology for social and national interests, e.g. in public policy advocacy or positive social campaigns (Hassan et al., 2023).

Digital Citizenship Theory (Jones & Mitchell, Ribble): indicators of digital ethical awareness include security, privacy, and responsibility for information sharing. (Jones et al., 2024) Formulate *Digital Citizenship* as a set of behaviors and attitudes that demonstrate the ethical, responsible, and safe use of information technology. Within this framework, digital citizenship indicators include the ability to communicate politely, maintain digital privacy, think critically about online information, and not engage in bullying practices or spreading hoaxes (Öztürk, 2021). These indicators are an important basis in formulating observation and interview instruments in this study, because they are in line with the values of PKn that want to be instilled in the digital context.

Digital citizenship is related to individual behavior when communicating online, especially on social media, by acting responsibly and in accordance with accepted moral and ethical standards (digitalcitizenship.net), to become a healthy and respectable digital citizen. Students should be taught how to use social networks politely and how to get diverse information on the internet in the classroom (Öztürk, 2021).

#### **The Importance of Social Ethics in Elementary Schools**

Ethics are rules used by humans in life that help to determine what is right and wrong (Magnis-Suseno, 2016). *Netiquette* is an obligation that is present to be complied with by *Stuttgar* acting when connected to the internet

According to (Magnis-Suseno, 2016) Ethics can be divided into several forms, namely, (1) general ethics that question the basic principles that apply to all human actions; (2) special ethics that address these principles in relation to human obligations in various spheres of life; (3) individual ethics that question man's obligations as an individual, especially to himself and through conscience towards the Divine; and (4) social ethics that govern human obligations coupled with the fact that he is a social being.

The formation of social ethics in cyberspace in elementary school students is very crucial. Because of their age they are still in character development and are still early users of digital technology. According to (Maifianti et al., 2021) Students who are taught social ethics from an early age usually have a higher sense of empathy for others in cyberspace. Students understand the importance of maintaining privacy, respecting their views and even respecting the opinions of others, they also tend to be able to avoid actions that can hurt others emotionally. Digital ethics will form the personality of students who know the limits in surfing the internet and social media. This process is called *Netiquette*, where netiquette is important in building healthy and positive interactions, especially for elementary school students who are still in the cognitive and social development stages. The basic principles when practicing social ethics in cyberspace are as follows:

##### **1. Respect for Privacy**

This principle includes a prohibition on disseminating personal information without permission or accessing the data of others without authorization. In addition to avoiding the dissemination of personal information, students need to be taught to maintain their own privacy boundaries, for example by not sharing too much personal information on social media.

##### **2. Responsibilities in Sharing Information**

This principle is important to do because of the rampant spread of hoaxes and unverified information on social media. It is hoped that before sharing information, it can check the truth of information, avoid the spread of hate speech, and try to support a positive digital environment.

##### **3. Courtesy and Respect**

When interacting socially in cyberspace, it is expected to be able to use the language that Okay, avoid *Cyberbullying*, and respect dissent. In addition to avoiding *cyberbullying*, Students also need to understand how to convey opinions in a way that does not offend others such as by using *Emoticon* or polite words.

##### **4. Digital Security Awareness**

This principle addresses the prohibition against sharing sensitive data that could be misused (Maifianti et al., 2021).

*Netiquette* stands for "Internet etiquette" and refers to digital etiquette or a code of good conduct on the internet, including several aspects such as email, social media, online chat, web forums, website comments,

multiplayer games, and other types of online communication (Christensen et al., 2017). Both terms, netiquette and digital ethics, are used interchangeably in the literature, so for the purposes of this study, I will use both terms to refer to the same meaning, although I argue that digital ethics encompasses netiquette in many aspects.

As discussed earlier, the nine elements of digital citizenship are included in the S3 framework: (security, intelligence, and social). Digital etiquette as an essential element of digital citizenship is classified under the principle of savvy related to self-education and interacting with others (Al-Khatib, 2023). Digital etiquette should be part of the classroom rules or academic goals in any educational setting; It should also be described in online activities as a standard guideline for good behavior, awareness, and concern for others. However, production in the field of netiquette as a separate field of study is still very limited, as it is still in the early stages of research (Anjani, 2018).

In the literature, few works have examined netiquette and attempted to establish a standard theoretical framework of netiquette rules that can be applied in online activities. One such effort was made in 1994 through the ten core rules of netiquette put forth by Shea in his book, (Anjani, 2018). In the following sections, I will explore the ten rules of Shea. Shea lays out the ten core rules of netiquette as follows:

- a. Rule 1. Remember that you are interacting with humans.
- b. Rule 2. Adhere to the same standards of behavior online as you would in real life.
- c. Rule 3. Know where you are in cyberspace.
- d. Rule 4. Respect other people's time and bandwidth.
- e. Rule 5. Keep your image online.
- f. Rule 6. Share expert knowledge.
- g. Rule 7. Help control the war of words.
- h. Rule 8. Respect the privacy of others.
- i. Rule 9. Don't abuse your power.
- j. Rule 10. Be tolerant of the mistakes of others

#### **Value-Based Learning strategies and learning**

Increasing understanding of digital citizenship is an important step to shape their social ethics in interacting in cyberspace. Strategies that can be used in schools through a systematic study approach by (Wulandah, 2023b) shows that despite the recognition of the importance of digital citizenship education in primary schools, most national curricula in various countries including Indonesia have not explicitly and systematically integrated aspects of digital ethics into the learning structure. On the other hand, teachers are often not equipped with sufficient pedagogical competence to teach online netiquette or ethics in a contextual manner. This condition results in a gap between students' increasingly complex technological practices and the limitations of formal education interventions value-based learning, Value learning theory (Lickona): affective, cognitive, and psychomotor approaches in ethical learning.

In the net-based value education process, as stated by the APEID Committee (*Asia and the Pacific Programme of Educational Innovation for Development*), value education is specifically aimed at:

- a. Applying value formation to children.
- b. Produce attitudes that reflect desired values and,
- c. Guiding behavior consistent with those values. So that the purpose of value education includes educational actions that take place starting from value awareness efforts to the realization of valuable behaviors (UNESCO, 1994).

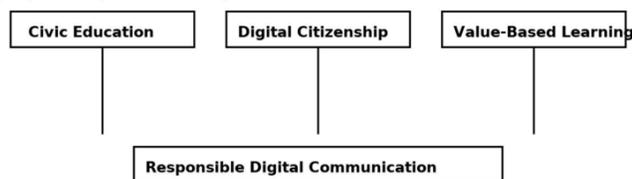
Value education sharpens us to think critically, analytically and selectively about something that has value in philosophy and science. These foundations were developed for man to be able to discover the essence of the whole human being. The position of this value has a position among other disciplines, including; (a) Meta-analysis, which is to criticize the truth achieved through the consideration of religious and cultural values. It boils down to understanding the nature of human beings from the perspective of the nation's philosophy and beliefs. And (b) *Par excellence*, Namely an effort to utilize superior values in the discipline for the development of value-sharing actions, related to designing the development of children's interest and concern for values. According to Egan, the development of children's interest and concern for values takes

place in four stages, namely: mythical, romantic, and ironic stages. The four stages of development take place in tandem with the physical growth of children who are getting older and older. (UNESCO, 1991). In elementary school students in grades 4-6 the age range of 8-15 years is a romantic stage, where in this age range, children hope that there is a lot of information that can provide descriptions about humans, the spirit of life, adventure, technological developments, sports to the area of individuals who are foreign to them (Anjani, 2018).

Cyberculture theory emphasizes the relationship between communication and one's self-control. Cyberculture is a message that introduces an action or reaction from a person's self-control regarding a response arising from certain events encountered. There is a principle of the process of control or self-control and communication in the theory of Cyberculture (Widiyastuti et al., 2023), among others: First, feedback in it has several ways, namely: there is a positive or negative response from the existence of a *pristiwa* encountered. Second, restrictions on actions to prevent positive responses and maximize negative responses. For example, there is a response to the actions of the perpetrator who alluded to the SARA issue will get a response that tends to be negative as well. There was no positive response in support of the act of denouncing through social media. Third, information varies *inversely* as noise, which is a variety of information becomes crowded in interaction. If there are individuals who offend the egalitarian element, then other users will respond negatively and attack the perpetrator who uploads something negative on social media (Widiyastuti et al., 2023).

#### Digital Literacy for the Formation of Social Ethics in the Virtual World

Responsible digital communication focuses on ethical principles and responsibility in interactions and the dissemination of information in digital media. Digital communication ethics also includes the obligation of users to maintain courtesy in communication, respect privacy, and consider the social impact of the messages disseminated (Hamama, 2024). Digital literacy is considered crucial so that individuals can distinguish between true and false information and play an active role as digital citizens who can promote ethical behavior, empathy, and respect for diversity in online interactions.



Source: Processed Researcher

Responsible digital communication integrates aspects of communication ethics, digital literacy, and responsible digital citizenship to create a digital space that is safe, informative, and inclusive for all users. (Nadifa, 2025).

#### Methodology

This study uses the *mixed methods* With design *Sequential Explanatory* which integrates quantitative and qualitative data to provide a comprehensive understanding of the role of PKn in building responsible digital communication in elementary school students. The quantitative phase was carried out first through a structured survey of 50 students in grades 4-6 from four elementary schools in Bandung (SDN Parakan Waas, MI As-Syifa, MI Alam Gaharu, and SD Assalam) using a questionnaire instrument with a 5-point Likert scale that measures indicators of digital ethical awareness based on Digital Citizenship Theory (Jones et al., 2024). Quantitative data were analyzed using descriptive statistics to identify students' patterns of understanding of digital ethics, including data privacy awareness indicators with the highest scores ( $M=4.5$ ) on "maintaining the privacy of accounts and personal information", online communication ethics with a moderate score

(M=3.7) on "using polite language on social media", cybersecurity with a low score (M=3.2) on "recognizing malicious links and hoaxes", and positive digital participation with a moderate score (M=3.8) on "positively participating in online forums". Sampling technique using *purposive sampling* with the criteria of students who have used digital devices for at least 6 months and participated in PKn learning consistently.

The sampling technique used was purposive sampling, with criteria including students who (1) had used digital devices for at least six months, (2) actively participated in PKn learning, and (3) represented both public and private elementary schools to capture variations in digital literacy exposure. The schools were selected based on accessibility and representativeness of urban school typologies in Bandung. In addition, maximum variation sampling was applied to ensure diversity in gender, grade level, and socio-economic background of participants. The qualitative phase is carried out as a *Explanatory follow-up* through in-depth interviews with 15 PKn teachers, 20 parents, and participatory observation of PKn learning. Qualitative data was analyzed using *Thematic Coding* with three stages: *Open Coding* to identify the initial theme from the perspective of stakeholders, *axial coding* to categorize themes based on learning strategies, implementation challenges, and evaluation of the role of PKn, and *Selective Coding* to interpret the convergence and divergence of findings between respondents. Qualitative interpretation resulted in the finding that teachers integrated digital ethics through contextual and simulated discussions, parents applied time and content-based supervision, while students demonstrated an understanding of civic values in a digital context through the application of manners and *Critical Thinking* to information. Data integration showed that low scores of cybersecurity (M=3.2) were confirmed through teacher interviews about the limitations of specific materials, while the highest scores of privacy awareness (M=4.5) were supported by teacher learning strategies and parental supervision. Methodological triangulation through *cross-case analysis* between schools and *member checking* ensuring the credibility of interpretation in the context of the implementation of PKn for digital citizenship in Indonesian primary schools (Braun & Clarke, 2021; Creswell, 2018).

### The Findings

This research produced comprehensive findings regarding the role of Civic Education in building responsible digital communication in elementary school students. The results of the study show that PKn has a significant contribution in increasing students' digital ethics awareness, although there are variations in the level of understanding in certain aspects.

#### Student Digital Ethics Awareness Profile

Based on the analysis of quantitative data on 50 students in grades 4-6 from four elementary schools in Bandung, an interesting pattern was found in the distribution of digital ethical awareness. Data privacy awareness showed the highest score (M=4.5) on the indicator "maintaining account privacy and personal information", indicating that students already have a good understanding of the importance of protecting their personal data. These findings are in line with the theory *Digital Citizenship* submitted by (Jones et al., 2024) which emphasizes privacy as the main foundation of responsible digital citizenship. Communication ethics *Online* showed a moderate score (M=3.7) on the indicator "using polite language on social media", illustrating that students have a fairly good awareness but still need reinforcement in daily digital communication practices. Cybersecurity recorded the lowest score (M=3.2) on the indicator "recognizing malicious links and Hoaxes", revealing a critical gap in students' digital security literacy. Positive digital participation obtained a moderate score (M=3.8) on the indicator "participate positively in the forum *Online*", showing the potential that can be further developed.

**Table 1.** Integration of Quantitative and Qualitative Data in PKn Learning

Digital Ethics Indicators	Quantitative Findings	Qualitative Findings	Combined Interpretations
Data Privacy Awareness	Highest average score (M=4.5) on the indicator "Maintaining	Teachers integrate discussions about password	There is consistency between students' privacy awareness (quantitative data)

	account privacy and personal information"	safety and real-world examples of data misuse	and teachers' strategies (qualitative data). PKn plays a role in strengthening this attitude
Online Communication Ethics	Moderate score (M=3.7) on the indicator "Use polite language on social media"	Observations show that teachers use online discussion simulation methods to practice manners	It is necessary to strengthen simulation-based learning so that students practice politeness in real life
Cybersecurity	Low score (M=3.2) on the indicator "Recognizing malicious links and hoaxes"	Teacher interview: "Students are rarely given specific material on digital security"	There is a gap between student knowledge and the learning provided. Need for a more contextual curriculum
Positive Digital Participation	Medium score (M=3.8) on the indicator "Participate positively in online forums"	Parents emphasize the need for supervision because children are often passive in digital discussions at home	Teacher-parent collaboration is important to encourage active and responsible students in the digital space

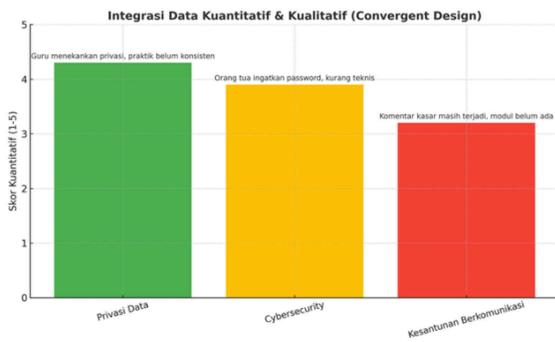
**Implementation of the PKn Learning Strategy**

**Table 2.** Analysis of Digital Ethics Learning Strategies in PKn

Learning Strategies	Teacher Frequency (n=15)	Implementation Examples	Theoretical Interpretation
Contextual Approach	12 (80%)	"Setting an example related to everyday life"	As per Vygotsky's constructivist theory of meaningful learning

Simulations and Case Studies	10 (67%)	"Taking the theme of speaking rudely, making videos of other friends, discussing how to respond to it"	Implementation of Lickona's theory of psychomotor dimensions in value learning
Interactive Discussion	9 (60%)	"Discussing, discussing social norms in social media interactions"	Application of Freire's dialogical learning theory in a digital context
Digital Rulemaking	8 (53%)	"Making rules regarding cellphone use"	Reflections on Digital Citizenship Ribble's theory of ethics and responsibility
Collaborative Supervision	7 (47%)	"Reminded to be accompanied by parents when using the internet"	According to the concept of digital ecosystem in the theory of Cyberculture

Qualitative data analysis from interviews with 15 PKn teachers revealed the dominance of contextual approaches (80%) in integrating digital ethics into learning. Theoretical interpretations suggest that this strategy is in line with Vygotsky's constructivist theory of learning regarding the importance of associating learning with student experiences (Faiz & Kurniawaty, 2022). Teachers develop *scaffolding* Learning through "examples related to daily life" and "displaying several examples that exist in the school environment and outside the environment". The implementation of simulations and case studies (67%) reflected the application of Lickona's value learning theory which integrates cognitive, affective, and psychomotor dimensions (Anjani, 2018). This strategy allows students not only to understand the concept of digital ethics theoretically, but also to practice it through real-life scenarios such as "taking the theme of speaking rudely, his friend videos another friend speaking rudely, then spreading it, discussing how to respond to it." This approach is in accordance with UNESCO's (1994) value learning principles on value formation, attitude creation, and consistent behavior guidance.



**Figure 2.** Value-Based Learning Model in the Context of Digital Ethics

The diagram shows the integration of three components: 1) Cognitive Dimension (knowledge of digital ethics, cyber regulation, and legal consequences), 2) Affective Dimension (digital empathy, social responsibility, and moral awareness), 3) Psychomotor Dimension (digital communication practice, simulation of ethical situations, and the application of values in online interactions).

**Table 3.** Analysis of Parental Supervision Patterns and Theoretical Interpretation

Surveillance Strategy	Parental Frequency (n=20)	Implementation Examples	Theoretical Interpretation
Time Restrictions	18 (90%)	"The cellphone can only be used on Saturdays/Sundays 1-2 hours/day"	Implementation of Cyberculture theory of restriction mechanisms in self-control
Access Control	16 (80%)	"The password of the parent who made it, emphasized that the cellphone is not his"	Application of the concept of Digital Citizenship on digital responsibility and ownership
Content Monitoring	14 (70%)	"The child is connected to his parents' email"	According to the theory of digital ecosystems in the formation of communication behavior
Active Mentoring	12 (60%)	"Reminded to be accompanied by parents when using the internet"	Reflection on scaffolding theory in digital social learning

Value Education	10 (50%)	"Being given a directive to bully is not good, hurting the hearts of others"	Implementation of value learning theory in the context of the family
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#### Digital Behavior Patterns and Qualitative Interpretation

Data from 20 parents revealed the dominance of time-restriction strategies (90%) in regulating the use of children's gadgets. Theoretical interpretation suggests that this approach is in line with the principle *restriction* in theory *Cyber Culture* (Dawitri & Amara, 2023) which emphasizes the importance of boundaries in preventing negative responses and maximizing self-control in digital communication. This monitoring pattern reflects parents' understanding of the risks of excessive digital exposure to the cognitive and social development of elementary school-age children. The implementation of access control (80%) through the "password of the parent who created" and the emphasis that "the cellphone does not belong to him" reflects the application of the concepts of ownership and responsibility in theory *Digital Citizenship*. This strategy helps children understand that access to technology is a privilege that comes with moral and ethical responsibility, not an absolute right that can be used without restrictions.

**Table 4.** Students' Responses to PKn Learning in a Digital Context

Response Aspect	Main Themes	Example Statement	Theoretical Interpretation
Internalization of Value	Honesty and Wisdom	"The value of PKn teaches to be honest, wise, polite on social media"	The success of the affective dimension in Lickona's theory of value learning
Critical Awareness	Anti-Hoax	"Not spreading hoax news and respecting other people's opinions"	Application of critical thinking in Digital Citizenship theory
Digital Empathy	Respecting Differences	"Mutual respect and empathy when you see friends mocking in group chats"	Implementation of the social dimension in the theory of digital citizenship
Social Responsibility	Positive Participation	"To be a citizen who is capable of communicating, utilizing positive technology"	According to the concept of civic engagement in the digital era

The students' responses show the internalization of significant PKn values in the digital context. Student statement "The PKn value teaches me to be honest, wise, and polite on social media and in the surrounding environment. For example, not spreading the news *Hoax* and respecting the opinions of others" reflects the success of the affective dimension in Lickona's theory of value learning. This interpretation shows that PKn has succeeded in forming a moral consciousness that can be transferred from the context of formal learning to the practice of daily digital communication. *Anti-Hoax* expressed by students reflects the application of *Critical Thinking* as a key component in theory *Digital Citizenship* (Jones et al., 2024). The ability of students to identify and reject the spread of false information shows the internalization of the critical values taught in PKn, especially related to the responsibility of citizens in maintaining the truth of public information

## Discussion

The findings of this study affirm the strategic role of Civic Education as a vehicle for internalizing civic values in a digital context, in line with Branson and Kerr's conceptualization of civic engagement as an instrument for the formation of active and responsible citizen character (Retnasari, 2022). The integration of digital ethics into civil society learning shows significant potential in shaping elementary school students' awareness of moral responsibility in cyberspace, although its implementation still faces structural and pedagogical challenges. The highest score on data privacy awareness ( $M=4.5$ ) indicates the success of the contextual learning strategies applied by teachers in integrating discussions about the security of personal information. These findings are consistent with research (Retnasari, 2022) which emphasises the importance of a systematic approach in education *Digital Citizenship* in elementary school. The simulation strategies and case studies used by teachers have proven effective in internalizing digital privacy values, as reflected in students' ability to identify the risks of misuse of personal data and implement basic security practices such as password management.

In contrast, low scores on cybersafety ( $M=3.2$ ) reveal a critical gap between students' technical ability to operate digital devices and their understanding of online security risks. Qualitative findings from teacher interviews confirm that "students are rarely given specific material on digital security", indicating limitations in the formal curriculum. This is in line with the findings (Vallès-Peris & Domènech, 2024) Regarding the need for a more comprehensive integration of digital literacy in the formation of social ethics in cyberspace. This gap underscores the urgency of developing specialized learning modules that integrate the technical aspects of cybersafety with the moral values taught in civil society. Dimensions of communication ethics *Online* with a moderate score ( $M=3.7$ ) indicating that students have a basic understanding of digital politeness, but still need reinforcement in daily communication practices. Implementation of value-based approaches (*value-based learning*) that integrates Lickona's learning theory has proven to provide a strong foundation in the formation of empathetic attitudes and social responsibility in the digital space. Learning strategies that combine cognitive, affective, and psychomotor dimensions allow students not only to understand the concept of politeness theoretically, but also to put it into practice through simulations of real-life situations relevant to their life contexts.

The role of parents as partners in the formation of responsible digital behavior shows high significance in the findings of this study. Parent-implemented time-based and content-based supervision patterns, combined with contextual learning strategies in schools, create a holistic digital education ecosystem. These findings strengthen the (Vallès-Peris & Domènech, 2024) Regarding the importance of a collaborative approach between school and family in developing character *Digital Citizenship* who are responsible. Mechanism *Feedback* and *restriction* applied by parents in line with the principles of the theory *Cyber Culture* in the formation of self-control and ethical communication in the digital space. The integration of Pancasila values in the context of digital ethics learning shows high relevance to the needs of student character formation in the digital era. Students demonstrate the ability to apply values such as honesty, wisdom, and empathy in their online interactions, as reflected in their statement on the importance of "not spreading the word *Hoax* and respect the opinions of others". This confirms the effectiveness of the approach *Responsible Research and Innovation* (RRI) proposed by (Vallès-Peris & Domènech, 2024) in integrating democratic values and social responsibility in digital citizenship education.

The implementation challenges identified, particularly related to the limitations of teaching materials and teachers' pedagogical competence, indicate the need for structural reformulation in the PKn curriculum. These findings reinforce previous research recommendations regarding the need for comprehensive teacher training and dynamic teaching material development to optimize the role of PKn in shaping responsible digital communication among Indonesian primary school students.

## Conclusion

This study identifies the fundamental role of Civic Education in the construction of responsible digital communication in elementary school students through a mixed methods approach that integrates quantitative

and qualitative perspectives. The findings show that the implementation of PKn significantly increases students' digital ethics awareness, with the highest score on the data privacy indicator ( $M=4.5$ ) but still facing challenges in the cybersecurity aspect ( $M=3.2$ ). Value-based learning models that integrate cognitive, affective, and psychomotor dimensions have proven to be effective in internalizing digital citizenship values, particularly through contextual and simulation strategies applied by 80% of respondent teachers. Collaboration between schools and families through time- and content-based supervision creates a holistic digital learning ecosystem. Nevertheless, the gap in the formal curriculum and the limitations of teachers' pedagogical competence indicate the urgency of developing more adaptive learning materials and comprehensive teacher training to optimize the potential of civil servants in shaping an ethical and responsible digital generation in Indonesia

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**Informed Consent Statement:** Any research article describing a study involving humans should contain this statement: 'Informed consent was obtained from all subjects involved in the study. For studies not involving humans, please exclude this statement.'

**Conflicts of Interest:** Declare conflicts of interest or state: The authors declare no conflict of interest.

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# e-Bangi THE ROLE OF CIVIC EDUCATION IN CULTIVATING RESPONSIBLE DIGITAL COMMUNICATION AMONG ELEMENTARY SCHOOL STUDENTS

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