

Research Article

Digital Literacy and Self-Concept of Orphanage Children: Evidence from West Aceh

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Abstract

The objective of this study is to determine the relationship between digital literacy and self-concept of orphanage children. Quantitative approach with a correlation research design was employed. The population of the study were orphanage children in West Aceh Regency. A total of 41 orphanage children was selected as the sample through purposive sampling technique. Data collection in this study used a questionnaire with a Likert scale that had met the requirements of validity and reliability. Data analysis used Pearson Product Moment correlation analysis with SPSS software. The Pearson product-moment correlation analysis revealed a statistically significant, positive association between digital literacy and self-concept among children living in orphanages in West Aceh, $r = .611$, $p < .001$ (two-tailed). The correlation coefficient indicates a moderately strong positive relationship which suggests that higher levels of digital literacy are associated with higher levels of self-concept. Therefore, it is crucial to integrate structured digital literacy programs with activities that promote confidence, self-efficacy, and responsible technology use to support children's overall psychological and educational development.

Keywords

Literacy; Digital Literacy; Self-Concept; Disadvantaged Children

Introduction

The rapid development of the internet and technology has brought significant changes to people's lives. Handayani et al. (2020) state that the fast advancement of technology has had a major impact on various aspects of life, one of which is the construction of self-concept. According to Hidayati and Savira (2021), self-concept is defined as an individual's perception or evaluation of themselves. This evaluation encompasses multiple dimensions, including physical, psychological, social, and emotional aspects.



An individual's self-concept is considered negative when they perceive themselves from an unfavorable perspective, whereas a positive self-concept is formed when individuals evaluate themselves positively. Characteristics of a positive self-concept include a favorable perception of one's abilities and confidence in achieving goals, while a negative self-concept involves feelings of worthlessness and doubt about one's capabilities (Prasetyo & Saputra, 2025). Individuals with a positive self-concept are generally able to plan their future realistically and demonstrate courage in facing life. In contrast, a negative self-concept tends to result in feelings of inadequacy and low self-esteem (Juliyanti & Pujiastuti, 2020).

Digital literacy skills are defined as competencies in managing digital media to search, utilize, and produce information. These skills aim to ensure that information, whether used as learning material or as a reference source, is applied wisely. According to Laanpere (2019), UNESCO's framework of digital literacy refers to a set of competencies that include the ability to access, manage, understand, communicate, evaluate, and create information through digital technologies. These skills are essential for ensuring accuracy and safety in accomplishing tasks. Digital literacy is categorized as a life skill that goes beyond merely operating technological tools; it also encompasses broader competencies such as social interaction, learning ability, and the development of critical, creative, and innovative thinking.

Children living in orphanages represent a group with social backgrounds that differ from those of children in general. Limited access to parental care, education, and other resources may influence the development of their self-concept (Kawitri et al., 2020). Self-concept refers to the entirety of an individual's experiences and existence as understood in a conscious state. Individuals often face significant challenges in modifying self-concepts that have already been deeply internalized (Felita et al., 2016). Self-concept has the potential to develop in either a positive or negative direction. This developmental trajectory is influenced by the individual, where acceptance of both strengths and weaknesses is key to forming a positive self-concept. Individuals with a positive self-concept are characterized by a deep understanding of themselves. Syahraeni (2020) argues that children with a positive self-concept tend to have strong motivation and resilience. Conversely, children with a negative self-concept are more likely to limit their potential due to feelings of inadequacy in meeting environmental demands, which may lead to low self-esteem.

Orphan status also affects emotional intelligence, self-concept, and interpersonal relationships among children in orphanages in West Aceh Regency. Denche-Zamorano et al (2023) emphasizes that parental involvement plays a crucial role in developing children's self-concept. Silva et al (2022) found that orphaned children tend to have lower self-concept across physical, socio-cognitive, emotional, and moral dimensions. Possessing strong emotional intelligence skills, such as self-awareness, empathy, and effective communication, can help individuals solve problems, interact with others, and develop emotional sensitivity toward others. These abilities are essential for establishing and maintaining healthy relationships. Orphanages play an important role in providing care, as well as formal and non-formal education, to support the development of disadvantaged children. However, despite these provisions, challenges related to identity formation often remain unresolved (Yayang & Hayati, 2023).

According to Nyathi (2022), empowering orphanage children is crucial for developing their digital skills. These children require a deeper understanding of digital ethics and culture. Such education should include the ability to identify, report, and prevent cyberbullying (Huda et al., 2025). This study is important because children raised in alternative care environments, such as orphanages, experience different psychosocial dynamics compared to those raised in nuclear families, which in turn influence the formation of their self-concept. Digital literacy can serve as a tool for empowering orphanage children to better understand themselves, filter negative influences from the digital world, and build confidence and a positive self-image. Healthy digital literacy practices can strengthen a healthy self-concept, enabling individuals to maximize their potential and prepare for a better future.



The Stick and Stone of Digital Literacy

The rapid advancement of digital technology has generated both positive and negative consequences for society. According to Gaol (2020), unhealthy internet behavior has become increasingly prevalent, as reflected in the widespread dissemination of misinformation, hate speech, and intolerance on social media platforms. As a key twenty-first-century competency, digital literacy equips children and adolescents with the ability to access, evaluate, and use information critically and responsibly while reducing their exposure to the harmful effects of online environments, including misinformation, pornographic content, violence, cyberbullying, and hate speech (Hidayat et al., 2024).

According to Kominfo (2022), digital literacy is conceptualized through four fundamental pillars that should be understood and practiced in everyday life. The Indonesian Digital Literacy Index framework measures digital literacy across four dimensions: digital skills, digital ethics, digital safety, and digital culture. Digital skills refer to an individual's ability to understand and effectively use information and communication technology (ICT) hardware, software, and digital operating systems in daily life. Digital ethics encompass an individual's capacity to recognize, demonstrate, adapt to, evaluate, and uphold ethical standards and appropriate online behavior (netiquette) in digital environments. Digital safety involves the ability to identify, implement, evaluate, and strengthen practices that protect personal data, privacy, and digital security in everyday online activities. Finally, digital culture refers to an individual's ability to understand, internalize, and promote national values, including the principles of Pancasila and Bhinneka Tunggal Ika (Unity in Diversity), while fostering cultural preservation and participation through the use of information and communication technologies (Kominfo, 2022).

Theory of Self-Concept

Rogers (1995) defined self-concept as an organized and dynamic perception of the self that develops through individuals' experiences and their innate tendency toward self-actualization. According to Rogers, accumulated self-related experiences shape how individuals perceive, evaluate, and understand themselves. Early childhood experiences are particularly influential, as they provide the foundation for the development of self-concept. Similarly, Koivisto et al (2022) argued that self-concept encompasses an individual's overall perception of themselves, including physical, psychological, social, and spiritual dimensions.

Lichner et al (2021) described self-concept as an individual's perception of themselves that integrates emotional, psychological, physical, and social aspects, as well as personal aspirations, beliefs, ambitions, and perceived achievements. Childhood represents a critical developmental period during which the foundations of personality and self-concept are established (Crone & Drunen, 2024). During this stage, self-concept is gradually constructed, shaped, and reinforced through interactions with the surrounding environment, ultimately influencing the development of enduring personality characteristics (Nishad et al., 2022).

A positive self-concept is characterized by self-confidence, personal responsibility, and the ability to view success and failure as outcomes of one's efforts and learning experiences (Leather, 2013). In contrast, individuals with a negative self-concept tend to experience fear of failure, avoid taking risks, demonstrate lower academic motivation, and have difficulty accepting responsibility for their actions (Felita et al., 2016). These characteristics may hinder psychological well-being and social adjustment, particularly during childhood and adolescence, when self-concept continues to develop.

Method

Study design, population, setting

This study employed a quantitative approach using a Pearson product–moment correlation design. According to Hoy and Adam (2015), a quantitative approach is selected because this study utilizes



numerical data to interpret and present the findings, while also linking the results to the variables and phenomena under investigation. Furthermore, this approach is used to test hypotheses and measure the strength of relationships between variables.

The population of this study was orphanage children who lived in orphanage houses located in West Aceh Province, Indonesia. We employed purposive sampling technique to include only children age 11 – 18 years of age. This age group was selected by considering that they have used or owned technological tools such as smart phone, laptop, access to internet, or computer. A total 41 children participated whom 23 of them (56.1%) were in junior high school, 18 children (43.9%) were in senior high school.

Study tools, variables, data collection

In this study, a questionnaire was used as the primary instrument for data collection (Hoy & Adam, 2015). This technique involves providing respondents with a set of structured statements to be answered independently. The variables in this research were measured using an ordinal Likert scale. The questionnaire was designed in a closed format, requiring respondents to select one of five possible answer options (1: completely disagree – 5: completely agree).

Each variable was operationalized using a questionnaire adapted from items employed in previous studies. The questionnaire comprised essential components, including respondent identity, instructions for completion, and a set of statements. It was designed to measure the relevant research constructs by requiring respondents to read the questionnaire carefully and select from the provided response options without adding additional information. This approach was intended to minimize incomplete or improperly filled responses, thereby enhancing the accuracy and completeness of the data.

In this study, two instruments were utilized to measure the primary variables, namely digital literacy and self-concept. The digital literacy instrument, adapted from Kominfo (2022), comprised four indicators: digital skill (8 items), digital ethics (7 items), digital safety (8 items), and digital culture (7 items). Meanwhile, the self-concept instrument, based on Rogers (1995), included three indicators: self-esteem (5 items), self-image (7 items), and ideal self (6 items).

Data analysis

Prior to hypothesis testing, a normality test was conducted to determine whether the data satisfied the assumption of normality required for parametric statistical analyses. In correlation analysis, the assumption pertains to the distribution of the variables (or, more precisely, the bivariate normality underlying the Pearson correlation), and it is commonly assessed through graphical and statistical procedures (Warner, 2008). In this study, normality was examined descriptively using histograms of standardized residuals and statistically using the Kolmogorov–Smirnov test through the *Explore* procedure in SPSS. A significance value (p) greater than .05 indicates that the data do not significantly deviate from a normal distribution, whereas a value less than .05 suggests a significant departure from normality (Buckley, 2024).

Correlation analysis was employed to examine the strength and direction of the relationship between digital literacy and self-concept. Correlation coefficients range from -1.00 to $+1.00$, where values close to $+1.00$ indicate a strong positive relationship, values close to -1.00 indicate a strong negative relationship, and a value of 0 indicates no linear relationship between the variables (Cohen, 2013). The magnitude of the correlation coefficient may be interpreted using Cohen's guidelines, where $r = .10$ represents a small effect, $r = .30$ a medium effect, and $r = .50$ or greater a large effect.

The relationship between the study variables was analyzed using the Pearson product–moment correlation coefficient because both variables were measured on continuous scales and met the assumption of normality. Statistical significance was determined using a two-tailed significance test with

an alpha level of .05. A *p*-value less than .05 was considered evidence of a statistically significant relationship between the variables. All statistical analyses were performed using IBM SPSS Statistics.

Ethical considerations

This study was conducted in accordance with ethical principles of research involving human subjects, especially minors with disadvantaged family background. We obtained the ethical clearance from Universitas Teuku Umar's institutional review board. Prior to data collection, we secured informed-consents from all the participants and made sure that their participation in this study was voluntary. Their identity is kept confidential throughout the research process and journal publication. Additionally, AI tools were used to improve sentence clarity and identify language errors in the manuscript prior to publication. AI was not used to fabricate or manipulate data, conduct or generate analyses, or develop the ideas and arguments presented in this publication.

Results

Digital Literacy (X)

Descriptive analysis of the Digital Literacy variable (X) was conducted using data collected through a Likert-scale questionnaire. Respondents' level of digital literacy was measured across four pillars: digital skill, digital ethics, digital culture, and digital safety. Overall, the results of the descriptive analysis indicate the average level of proficiency for each pillar, as presented in the following graph.

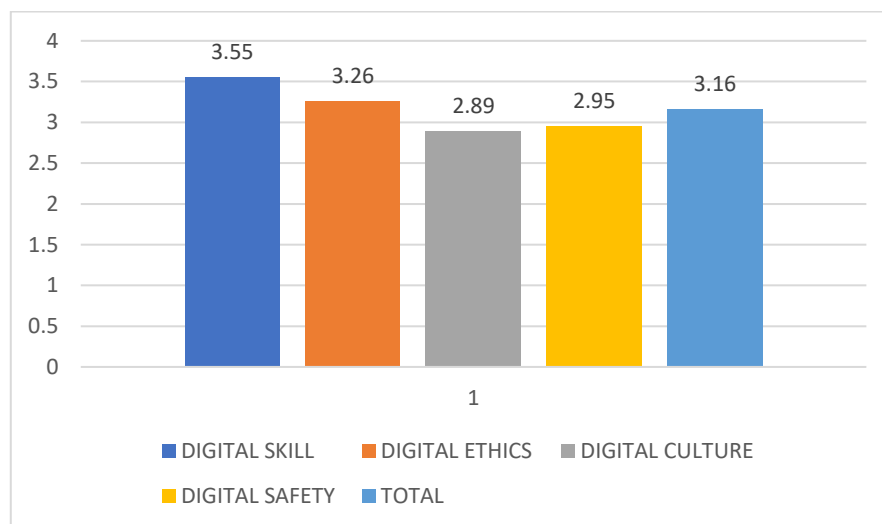


Figure 1. Overall Digital Literacy

Based on the Digital Literacy variable (X), the overall mean score of digital literacy among children in orphanages in West Aceh Regency was 3.16. This index is relatively moderate (1-5 scale). When examined across each pillar, variations in levels of proficiency were observed. The pillar with the highest mean score was Digital Skill, with a score of 3.55. The Digital Ethics pillar also demonstrated a relatively strong level of proficiency, with an average of 3.26. Meanwhile, the Digital Safety pillar scored slightly lower, with a mean of 2.95. Lastly, the Digital Culture pillar recorded the lowest average score, at 2.89.

Digital Skill

Digital Skill was identified as the highest-scoring pillar compared to the other indicators. Digital skills refer to an individual's ability to understand and effectively use information and communication technology (ICT) hardware, software, and digital operating systems in daily life (Kominfo, 2022). This dimension was measured using eight indicators, covering basic competencies to more advanced internet usage. Overall, respondents demonstrated a dominant proportion of "agree" and "strongly agree" responses across nearly all indicators. One of the highest indicators within this pillar is the ability to

download files, with an index score of 3.88. In contrast, the lowest indicator is the ability to shop through online marketplaces, with a score of 3.17. The overall mean score for the Digital Skill pillar is 3.55.

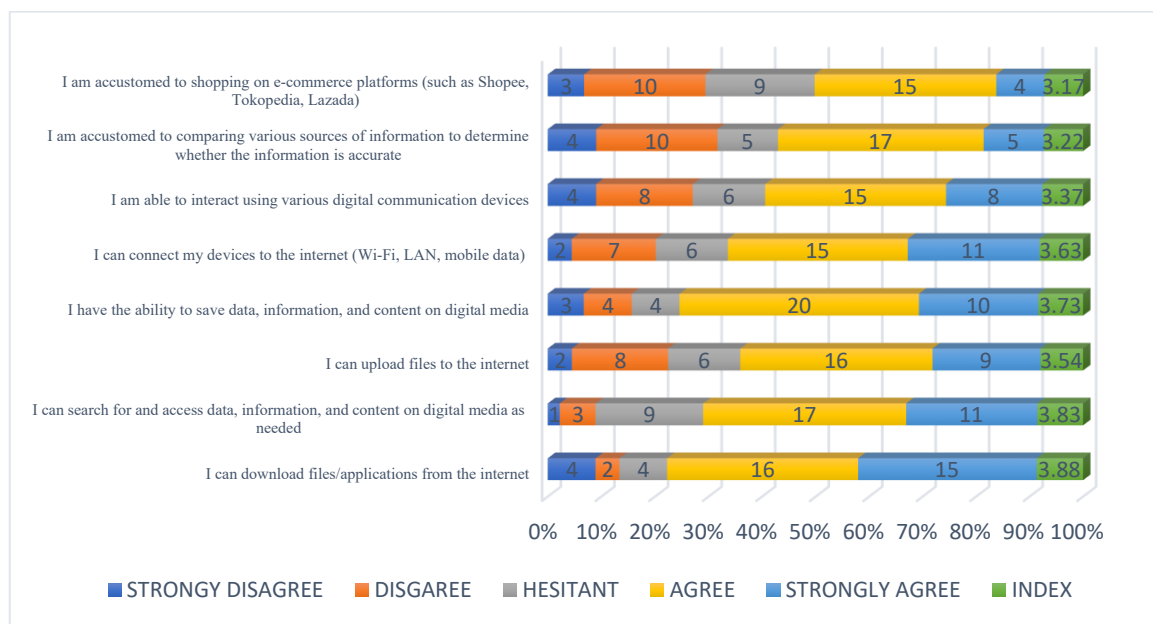


Figure 2. Digital Skill Pillar

Digital Ethics

Digital Ethics aims to measure respondents' awareness and behavior related to ethics, norms, and responsibility in digital interactions. It encompasses an individual's capacity to recognize, demonstrate, adapt to, evaluate, and uphold ethical standards and appropriate online behavior (netiquette) in digital environments (Kominfo, 2022). This pillar was assessed using seven indicators. Overall, respondents demonstrated a dominant proportion of "neutral" and "agree" responses across nearly all indicators. The indicators with the highest scores in this pillar include not sharing screenshots of private conversations on social media (3.07), as well as not encouraging others to post negative comments and not creating groups without permission (3.05). In contrast, the lowest indicator in the Digital Ethics pillar is respondents' tendency not to directly share information about accidents, with an index of 2.56. The overall mean score for the Digital Ethics pillar is 3.26.

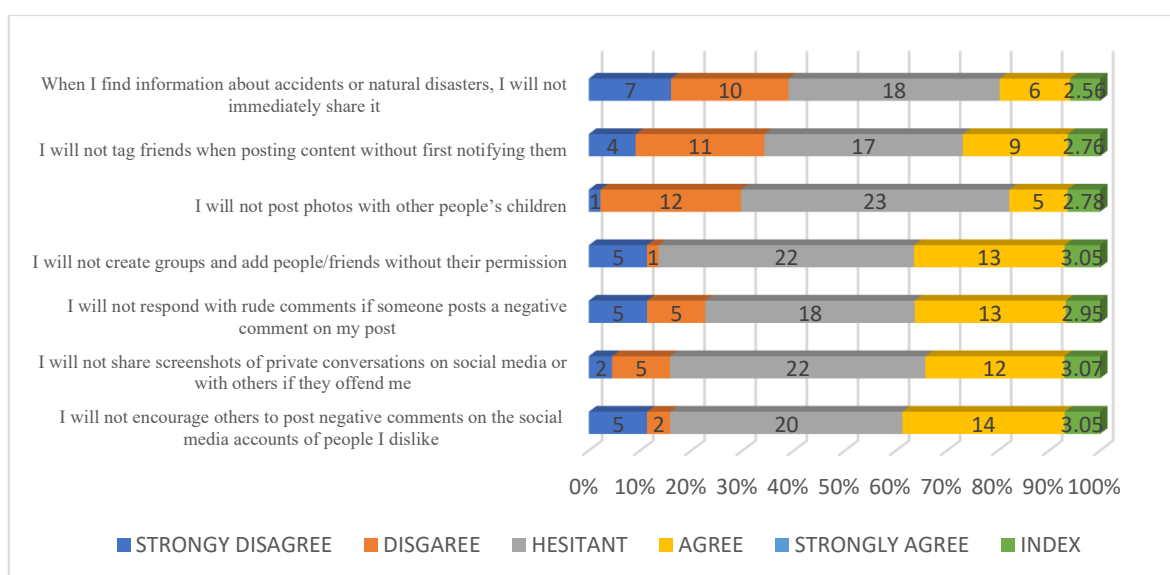


Figure 3. Digital Ethics Pillar

Digital Safety

Digital safety involves the ability to identify, implement, evaluate, and strengthen practices that protect personal data, privacy, and digital security in everyday online activities (Kominfo, 2022). This pillar was measured using eight indicators that assess respondents' awareness and ability to protect personal data, secure devices, and prevent exposure to online risks and threats. Overall, respondents showed a dominant proportion of “agree” responses across nearly all indicators. Referring to the graph, three indicators recorded the highest index scores. These include the ability to operate antivirus applications (3.59), as well as the ability to back up data across various media and to identify emails containing spam or viruses, both scoring 3.54. On the other hand, the ability to disable location features contributed the lowest score to this pillar. Overall, the Digital Safety pillar achieved an average score of 2.90.

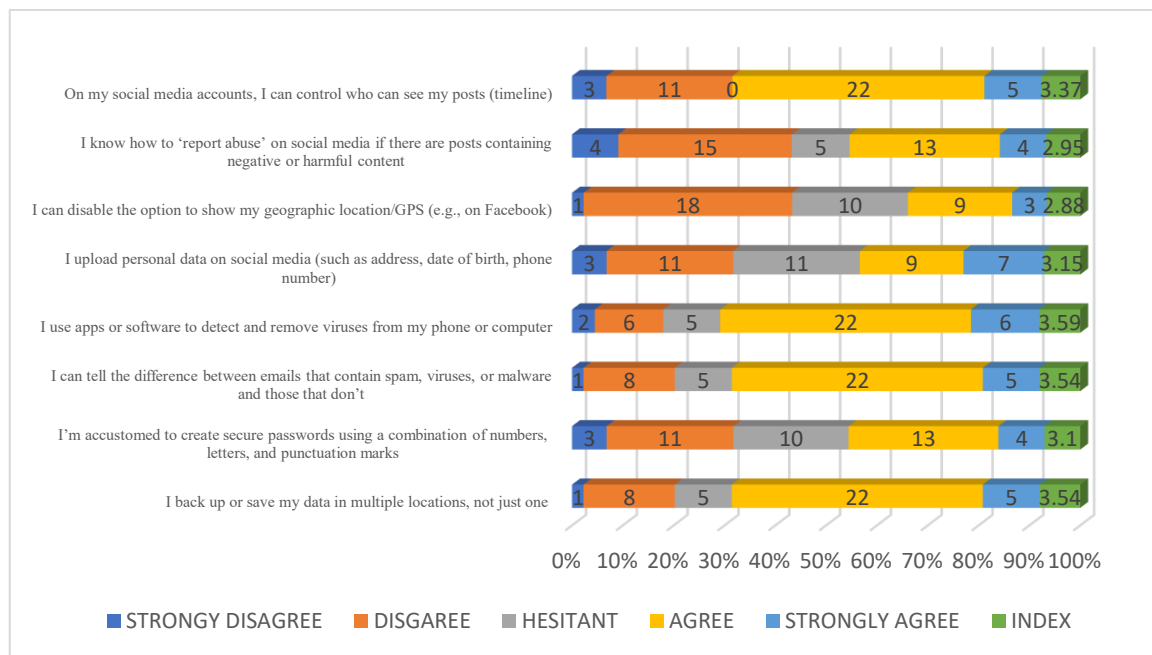


Figure 4. Digital Safety Pillar

Digital Culture

The Digital Culture pillar evaluates respondents' capacity and awareness in understanding, practicing, and internalizing national insight, Pancasila values, and *Bhinneka Tunggal Ika* within daily life as well as in the transformation of digital culture through ICT (Kominfo, 2022). This pillar was measured using eight comprehensive indicators, ranging from basic competencies to more advanced internet usage skills. As seen in Figure 5 respondents demonstrated moderate to high levels of digital culture, with index scores ranging from 2.61 to 3.07 on the measurement scale. The highest-rated practice was adapting communication styles to avoid offending or disrespecting others (Index = 3.05), followed by considering the feelings of readers from other ethnic groups (Index = 3.07) and recognizing cultural diversity when sharing information on social media (Index = 3.00). Respondents also reported being mindful of readers with different religious and political views (both Index $\approx$ 2.95–3.00). However, crediting the original author when reposting content received the lowest index score (Index = 2.61), suggesting that awareness of digital copyright and attribution practices remains relatively limited. Overall, the results suggest that while participants generally demonstrate respectful and inclusive online behavior, greater emphasis is needed on fostering responsible digital content sharing and intellectual property awareness.

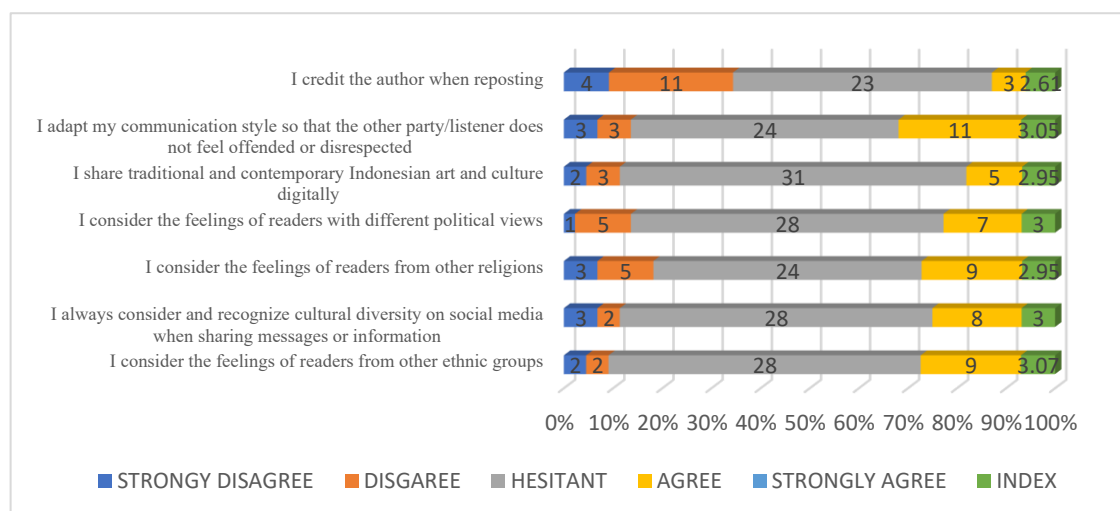


Figure 5. Digital Culture Pillar

Self-Concept (Y)

Descriptive analysis of the Self-Concept variable (Y) was conducted using data collected through a Likert-scale questionnaire. Respondents' level of self-concept was measured across three indicators: self-image, self-esteem, and ideal self. Overall, the results of the descriptive analysis indicate the average level of proficiency for each dimension, as presented in the following figure.

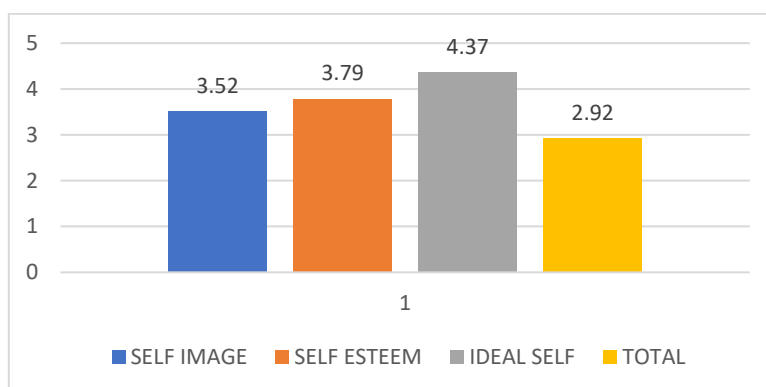


Figure 6. Overall Self Concept

Based on the descriptive analysis of the Self-Concept variable (Y), the overall mean score of self-concept among children in orphanages in West Aceh Regency was 2.92. When examined across each indicator, notable differences were observed in the formation of respondents' self-concept. The ideal self-dimension recorded the highest score, with an average of 4.37, followed by self-esteem at 3.79. Meanwhile, self-image had the lowest average score, at 3.50.

Self-Image

Self-image measures how respondents perceive and describe themselves. This indicator was assessed using seven items. Overall, respondents showed a dominant proportion of "agree" responses across nearly all indicators. The findings presented in Figure 7 indicate that the respondents demonstrated a moderately positive self-image, with index scores ranging from 3.07 to 3.83. The highest-rated aspects of self-image were planning before undertaking activities (Index = 3.83) and using time wisely (Index = 3.78), suggesting that the children generally perceive themselves as responsible and capable of self-management. Respondents also reported positive perceptions of their ability to accept criticism and advice (Index = 3.71) and acknowledge their mistakes without becoming angry (Index = 3.59). In contrast, perceptions related to physical appearance received comparatively lower ratings, including

feeling confident in the way they dress (Index = 3.41), being satisfied with their physical appearance (Index = 3.27), and particularly believing that others perceive them as attractive (Index = 3.07), which was the lowest-scoring item. Overall, these findings suggest that while the respondents generally possess positive self-perceptions regarding their personal behaviors and emotional regulation, they exhibit relatively lower confidence in appearance-related aspects of their self-image.

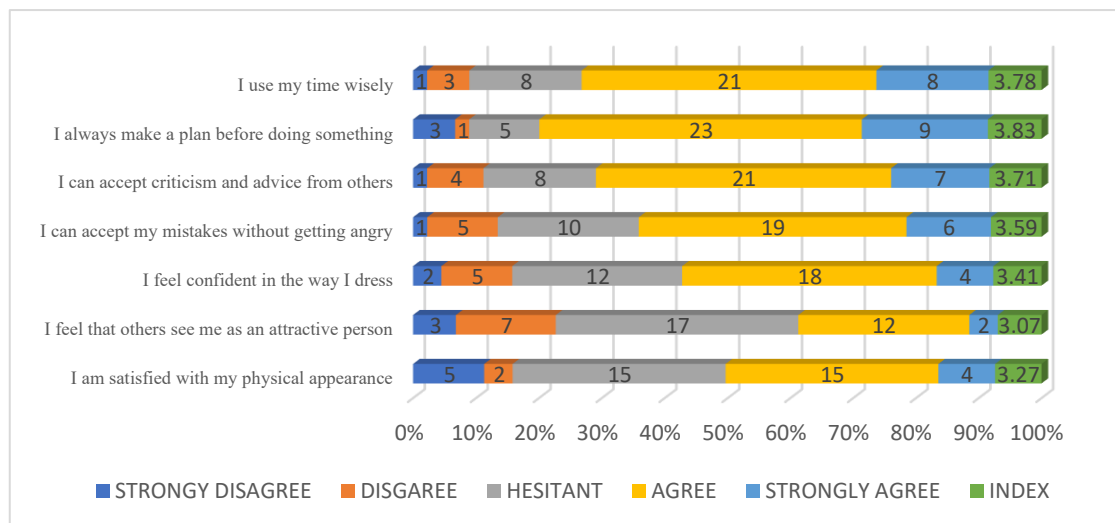


Figure 7. Self-Image Pillar

Self-Esteem

Self-esteem is one of the core dimensions of self-concept that measures an individual's evaluation of themselves. This dimension was assessed using five indicators that reflect self-confidence and a sense of self-worth. The findings presented in Figure 8 indicate that the respondents demonstrated a generally positive level of self-esteem, with index scores ranging from 3.27 to 4.22. The highest-rated item was believing that they will succeed if they try (Index = 4.22), reflecting a strong sense of self-efficacy and optimism about achieving personal goals. Respondents also reported being proud of themselves (Index = 4.00), feeling appreciated by those around them (Index = 3.78), and having many things to be proud of (Index = 3.66), indicating favorable evaluations of their personal worth and social acceptance. However, the lowest-rated item was feeling like a valuable person (Index = 3.27), suggesting that although respondents generally possess positive self-esteem, some still experience uncertainty regarding their intrinsic self-worth. Overall, these findings suggest that the children maintain a relatively positive sense of self-esteem, particularly in terms of confidence in their future success, while perceptions of personal value remain an area that may benefit from further psychosocial support.

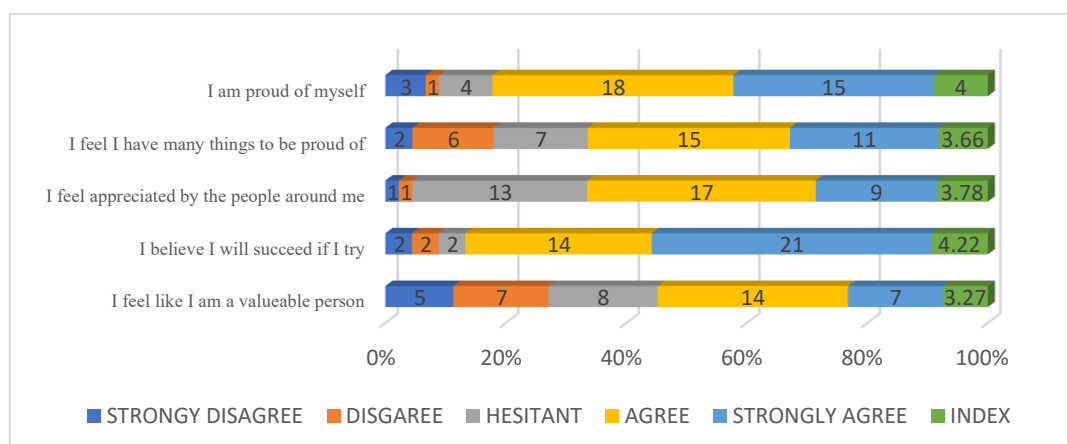


Figure 8. Self-Esteem

Ideal Self

The ideal self is the highest-scoring dimension compared to the other indicators. This dimension was measured using eight items. Overall, respondents demonstrated a dominant proportion of “agree” and “strongly agree” responses across nearly all indicators. The findings presented in Figure 9 indicate that the respondents exhibited a highly positive ideal self-concept, as reflected by index scores ranging from 4.20 to 4.54. The highest-rated aspiration was wanting to be a child who is loved by many people (Index = 4.54), followed by having dreams they want to achieve (Index = 4.46) and being creative and innovative (Index = 4.41). Respondents also expressed strong aspirations to become disciplined (Index = 4.34), resilient to criticism (Index = 4.29), and responsible by completing tasks on time (Index = 4.20). Across all items, the majority of respondents selected Agree or Strongly Agree, indicating that they possess clear personal aspirations and positive expectations about the kind of individuals they hope to become. These findings suggest that, despite their vulnerable backgrounds, the children maintain optimistic future-oriented goals and a positive vision of their ideal selves.

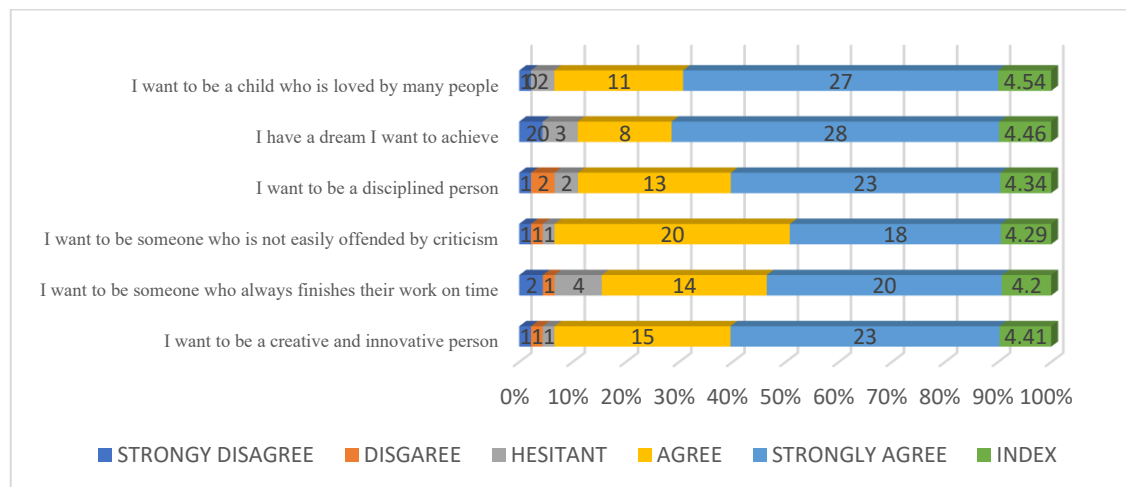


Figure 9. Ideal Self

Correlation between Digital Literacy and Self-Concept

The Pearson Product–Moment correlation analysis (Table 1) was applied to identify the degree of relationship between two variables measured on an interval or ratio scale. As a parametric statistical method, it requires that both variables under investigation are normally distributed.

Table 1. Pearson Correlation Analysis

		Digital Literacy	Self-Concept
Digital Literacy	Pearson Correlation	1	.611**
	Sig. (2-tailed)		<.001
	N	41	41
Self-Concept	Pearson Correlation	.611**	1
	Sig. (2-tailed)	<.001	
	N	41	41

Referring to the table above, the correlation coefficient between digital literacy and self-concept is indicated by a Pearson Correlation value of 0.611, which falls within a strong level of association. The positive coefficient signifies that the relationship between the two variables is positive in direction. This relationship is statistically significant, as the p-value (Sig. 2-tailed) of 0.001 is below the threshold of

0.01 ($p < 0.01$) at a 99% confidence level ($\alpha = 1\%$). With a sample size of 41 ($N = 41$), it can be concluded that there is a significant positive correlation, meaning that higher levels of digital literacy are associated with more positive self-concept.

The results of the Pearson Product–Moment correlation analysis show a correlation coefficient (r) of 0.611, with a significance value (Sig. 2-tailed) of < 0.001 and a sample size (N) of 41. Since the significance value is below 0.05, it can be concluded that there is a statistically significant relationship between digital literacy and the self-concept of children in orphanages in West Aceh Regency. The coefficient of 0.611 indicates a strong positive relationship, meaning that improvements in digital literacy are associated with stronger self-concept.

Discussion

This study aims to examine the significance of the relationship between digital literacy and the self-concept of children living in orphanages in West Aceh Regency. The research design involves two main variables: digital literacy as the independent variable (X) and self-concept as the dependent variable (Y). A quantitative approach was employed, with data analysis conducted using the Pearson Product–Moment correlation test. Data were collected through the distribution of online questionnaires via Google Forms to 41 respondents, consisting of children residing in orphanages in West Aceh. The selected respondents were contacted through orphanage coordinators, and the questionnaires were administered directly within the orphanage environment.

Digital well-being is another crucial aspect, particularly in an era where digital technology is ubiquitous (Rad & Demeter, 2019). Low levels of digital literacy in society can lead to various negative consequences, including misinterpretation of information. Therefore, improving digital literacy is essential to minimize potential conflicts and issues arising from misinformation. In today's digital revolution, the internet offers an abundance of information; however, this abundance does not always correspond to the quality and relevance of available content. Consequently, the ability to navigate and identify accurate, relevant, and reliable information is a critical component of digital literacy. Despite this, disparities in access and digital literacy skills remain a significant issue, especially among children and adolescents in limited environments such as orphanages. This condition underlies the importance of investigating how digital literacy influences the self-concept of children in orphanages in West Aceh.

The results of hypothesis testing, analyzed using SPSS 29, confirm a significant relationship between digital literacy and self-concept. This is evidenced by a Pearson correlation value of 0.611, indicating a strong level of association. Moreover, the positive coefficient suggests that the relationship between the two variables is directly proportional. These findings are consistent with previous studies. Perez-Torres (2024) found that children with higher levels of media and information literacy tend to develop more mature digital identity strategies, which positively influence their self-concept. Similarly, Throuvala et al. (2021) emphasized that inadequate digital literacy exposes children to misleading and harmful content, negatively affecting their academic development, whereas digitally literate children are better equipped to think critically and utilize digital resources effectively. In line with Chae (2020), digital literacy also encompasses the ability to identify and manage online risks such as cyberbullying, misinformation, and harmful content, thereby helping children protect their self-concept from negative experiences.

Digital literacy also encompasses the ability to identify and respond to online risks, such as cyberbullying, misinformation, and harmful digital content. Children with strong digital literacy skills are better equipped to protect themselves from negative online experiences that may undermine their self-concept. Chae (2020) found that digital literacy serves as a protective factor against cyberbullying victimization, which is closely associated with adolescents' psychological well-being and self-concept.



By enabling children to navigate digital environments safely and critically, digital literacy fosters a greater sense of security and personal control, both of which are essential for maintaining a stable and positive self-concept. Digital literacy also enables children to access and actively participate in online communities that support their interests, talents, and personal development. Positive interactions with peers and mentors in digital spaces can provide valuable social support and a sense of belonging, both of which are fundamental to the development of a healthy self-concept. When children feel accepted, respected, and valued within online communities, they are more likely to develop a positive self-image and perceive themselves as competent and worthwhile individuals (Wang et al., 2021).

Furthermore, Denche-Zomorano (2023) and Lichner et al. (2021) define self-concept as an individual's perception of themselves, encompassing physical, mental, social, and even spiritual dimensions. A positive self-concept enhances self-confidence (Koivisto et al., 2022) and influences how children perceive and evaluate their abilities and potential (Leather, 2013). Children with a strong self-concept are more likely to interact wisely in digital spaces and utilize technology to achieve personal and academic goals. Conversely, children with a negative self-concept often exhibit low motivation and lack clear life goals (Lichner, 2021). Gauthier-Duchesne et al. (2022) further highlight the link between poor self-concept and juvenile delinquency, noting that children with low self-concept may use digital spaces as an escape to seek validation.

Conclusion

The results of the Pearson Product–Moment correlation test confirm a significant positive relationship between digital literacy and the self-concept of children in orphanages in West Aceh Regency. This is evidenced by a correlation coefficient (r) of 0.611 and a significance value (p) < 0.001 . These findings indicate that improvements in digital literacy are aligned with the strengthening of children's self-concept. Thus, the main research problem has been addressed, demonstrating a clear and meaningful correlation between the two variables.

Based on the positive direction of the correlation, it can be concluded that the higher the level of digital literacy possessed by children, the higher their self-concept. Children with strong digital literacy skills tend to be more confident, able to evaluate themselves positively, and have a better understanding of their potential and identity. This suggests that digital literacy not only plays a role in technological competence but also contributes to children's psychological development, particularly in shaping a healthy and positive self-concept. With a positive self-concept, children are better able to maximize their potential to achieve their goals and build a better future.

However, this study has several limitations that should be considered when interpreting the findings. First, the cross-sectional correlational design identifies associations between digital literacy and self-concept but does not permit causal inferences. Second, the study was conducted exclusively among children living in orphanages in West Aceh Regency, which may limit the generalizability of the findings to children in other institutional settings or regions. This caution is particularly important since the sample size in this study was relatively small. Third, the data were collected using self-report questionnaires, making the results susceptible to social desirability and response biases.

The following recommendations are addressed to relevant stakeholders and future researchers based on the findings of this study. For orphanage administrators, it is recommended to enhance guidance and training in digital literacy for children through educational activities that promote positive and responsible use of technology. For children in orphanages, it is suggested that they use digital media wisely and productively, as this can help build self-confidence and foster a positive self-concept.

Furthermore, educational institutions and the broader community are encouraged to take an active role in supporting the development of digital literacy among children in orphanages through collaborative and educational social initiatives. For future researchers, it is recommended to expand this study by increasing the number of respondents, broadening the research setting, and examining additional variables that may influence children's self-concept, such as social, emotional, and digital environmental factors.

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