

# Analysing the Role of Education in Shaping Students' Critical Thinking Starting from Elementary School

Irwan Djumat<sup>✉1</sup>, Nani I. Rajaloo<sup>2</sup> & Hasmawati<sup>3</sup>

<sup>1</sup> Pascasarjana, Universitas Khairun, Ternate, Indonesia

<sup>2,3</sup> PPKn, FKIP, Universitas Khairun, Ternate, Indonesia

✉ [irwandjumat73@gmail.com](mailto:irwandjumat73@gmail.com)

**Abstract.** The limited literacy and critical thinking skills of elementary school students in understanding media information can give rise to the spread of hoaxes. This research is considered urgent as it seeks to examine the critical thinking process in fostering social awareness from an early age. The purpose of this study is to analyze the design of learning strategies that can enhance students' media literacy and critical thinking abilities. A quantitative approach was applied, involving a sample of 460 students from grades 4–6, selected through stratified random sampling from several elementary schools in Ternate City. Data were collected using a Likert-scale questionnaire ranging from strongly disagree (1) to strongly agree (5). The data were analyzed using descriptive statistics and regression techniques with the assistance of SPSS Version 29.0. The findings indicate that the implementation of social media-based education significantly improves students' critical thinking skills in relation to media literacy. In conclusion, integrating social education with media literacy can help students develop the ability to think critically and act responsibly when evaluating information they read or encounter in the media. The study suggests the need for training programs and additional learning resources in elementary schools to strengthen these competencies. The practical implication is that students will increasingly develop the capacity to identify and understand valid information, thereby reducing susceptibility to misinformation.

**Keywords:** Critical; Elementary School; Literacy; Media.

## 1. Introduction

In the 21st century, the media's role in providing information continues to grow. Social awareness is needed to build public understanding of global and local issues through media (Smart et al., 2019). In obtaining truthful information, emotional stability and personal beliefs are needed to influence opinions and decision-making more than objective facts and verified data (Essien, 2025). This phenomenon shows how important the role of education, especially basic education, is in equipping the younger generation to sort information critically and responsibly (Mena-Guacas et al., 2025). Elementary school education serves not only as an academic foundation, but also as a place to instill the social values and critical thinking skills needed to navigate the rapid and often erroneous flow of information (Song et al., 2024). Before receiving information, the role of basic education emphasizes mastery of basic literacy and general knowledge (Sarmiento et al., 2025). However, with the emergence of new challenges characterized by disinformation, information manipulation, and the spread of fake news through social media and other digital platforms, the role of education in fostering social awareness and critical thinking skills from an early age is becoming increasingly important (Kassenkhan et al., 2025). UNESCO's latest report states that developing media and information literacy in primary schools is a strategic step in developing students who are able to participate actively and responsibly in society (Ika Sari et al., 2024). Education that instills an understanding of the authenticity of information sources, critical analysis of digital content, and an understanding of social and cultural context helps students recognize widespread bias, hoaxes, and propaganda (Boler et al., 2024; Rejeb et al., 2024).

Additionally, research from the Stanford History Education Group shows that students who receive an education that integrates critical learning and social awareness are better able to filter out misinformation and develop attitudes of empathy and social responsibility (Obrenovic et al., 2024). This shows that education plays a role not only in building academic competence, but also in forming character and morals that can increase social awareness. Basic education must integrate the values of diversity, tolerance, and social justice as part of a curriculum that supports the formation of a positive social identity (Hasan & Juhannis, 2024). Through discussion activities, collaborative projects, and hands-on experiences in the community, students can learn about the importance of solidarity, empathy, and awareness of information on social issues in the media (Stephenson, 2025). This approach will enhance their ability to think critically about social injustice and inequality and encourage them to become agents of change in the future (Nilsson Dahlström, 2025). In a world of rapid digitalization, basic education is essential to equip students with the knowledge and skills needed to actively participate in a pluralistic and dynamic society (Supa et al., 2025). Research from the Brookings Institution confirms that developing social and critical awareness from an early age can strengthen the foundations of democracy and reduce the spread of extremism and intolerance (Indelicato & Martín, 2025). By building a deep understanding of human rights, cultural diversity, and the importance of intercultural dialogue, children can become more conscious citizens who are committed to the values of democracy and social justice (Monsalve-Silva et al., 2024). Therefore, promoting character education and developing critical thinking skills in primary schools should be a top priority for teachers, policy makers, and parents. Implementing innovative curricula and interactive and participatory teaching methodologies can accelerate this learning process (Arranz-García et al., 2025). In addition, collaboration between elementary schools, the community, and the media is very important in building an education system that is capable of instilling comprehensive social awareness (Akinsemolu & Onyeaka, 2025).

### **1.1. Problem Statement**

Before information can be verified by students and fake news spreads rapidly on social media and other digital platforms, students' social awareness in education becomes increasingly vulnerable to manipulation and disinformation (Surjatmodjo et al., 2024; Tătaru et al., 2024). This fact is a big challenge in building basic education in forming elementary school students to be critical and socially responsible, as the younger generation is still in the stage of character development and critical thinking skills are being built (Alfaro-Ponce et al., 2024). According to a Pew Research Center report, more than 60% of the global population reports difficulty distinguishing between real and fake news, and about 45% admit to being frequently exposed to disinformation on social media (KaabOmeir et al., 2024; Bilişli et al., 2024). This problem is not only related to the individual's inability to assess the truth of information, but also reflects the shortcomings of the education system which has not been able to instill media literacy and critical thinking skills from an early age (Orosz et al., 2024). Basic education plays an important role as the main foundation for developing social awareness and critical analysis skills towards incoming information (Berciano et al., 2024).

A recent UNESCO study showed that only 35% of primary schools in developing countries have curricula that systematically include media literacy and critical thinking skills (Ndibalema, 2025). This has an impact on students' limited ability to identify fake news and understand social issues in depth, which ultimately increases the risk of social polarization and manipulation of public opinion (Ali Adeeb & Mirhoseini, 2023). A common problem is the failure to integrate critical education into the core curriculum, which contributes to a decline in social awareness and analytical skills regarding contemporary issues in society (Guerrero & Sjöström, 2024). Specific challenges facing this elementary school include poor teacher training in teaching media literacy, limited learning resources, and a lack of interest from policymakers in the importance of critical education from an early age (Rojas-Estrada et al., 2024). Data from the Indonesian Ministry of Education and Culture shows that 70% of elementary school students in Indonesia have not received sufficient lessons on identifying fake news and analyzing social issues, while low levels of media literacy contribute to the increasing spread of fake news among teenagers and students. Therefore, an in-depth analysis of the role of education in building critical social awareness at an early age is essential, allowing the younger generation to face the challenges

of the post-factual era with greater maturity and responsibility (Höyssä & Hyysalo, 2009). Developing a curriculum that instills media literacy and critical thinking in elementary schools is one solution to building students' abilities to be more socially aware and able to filter information objectively, thus making a positive contribution to building students' abilities in the future.

## 1.2. Related Research

The role of basic education in shaping students' critical thinking has significant potential to instill social awareness and strong analytical skills regarding various information circulating in society (Burgos-Videla et al., 2025). A recent study found that integrating a curriculum focused on media literacy and digital ethics at the elementary school level can improve students' ability to distinguish between fact and opinion and evaluate the accuracy of information sources (Nguyen & Habók, 2024). Other research emphasizes the importance of developing elementary school students' critical thinking skills through project-based and discussion-based learning methods in encouraging students to ask questions and analyze social issues in depth (Rittmann & Mpofo, 2024). The approach can not only increase students' understanding of social issues but also build empathy and awareness of diversity and cultural perspectives through media (Rambaree et al., 2023). Active teaching in moral and ethical values can foster social awareness and ethical responsibility in students, which are important foundations for facing the challenges of the post-truth era (Parker et al., 2024). Basic education must be designed holistically, integrating media literacy, critical thinking, character development, and empathy to produce a generation capable of critical thinking and responsibility regarding the information they consume and disseminate. Furthermore, the role of teachers as facilitators and mentors is crucial in instilling these values, with their training and professional development integral to the program's success. Elementary school education is a strategic foundation for students in developing critical social awareness and responsible participation in society, particularly in the context of acquiring information (Grunwald et al., 2024). Collaborative efforts between primary education institutions, parents, and the local community are needed to create a learning environment that supports the development of students' critical thinking and sustainable social awareness in the future (Asmayawati et al., 2024).

## 1.3. Research Objectives

The urgency of this research lies in the widespread dissemination of misinformation and fake news on social media and other digital platforms. This phenomenon poses a significant challenge in developing critical and socially responsible attitudes in elementary school students. Despite the role of formal education in instilling social values, ethics, and critical thinking skills, the implementation of curricula focused on media literacy and character development remains imperfect, particularly in developing countries. Previous research has shown that media literacy levels in elementary schools remain relatively low in some regions, and many teachers lack adequate training to integrate these competencies into daily learning. This gap lies in understanding effective methods for instilling social and critical awareness from an early age, which will prepare young people to face the challenges of the complex information age. Many elementary schools still focus solely on academic mastery, neglecting character development, empathy, and critical analysis skills for incoming information. Therefore, the key question is how can curriculum development and learning methods at the elementary level enhance students' social awareness and critical analysis skills when faced with this rapid and biased flow of information? This study aims to identify and analyze effective learning processes to instill media literacy, social personality, and critical competence from an early age to elementary school students.

## 2. Theoretical Framework

### 2.1. Education as a Foundation for Explaining Social and Media Awareness

This theory asserts that basic education plays an important role in building social and media awareness from an early age (Alzahrani, 2025). By introducing basic concepts of diversity, social justice, and social responsibility, schools can instill values of empathy and awareness of

relevant social issues (Rashkova et al., 2024). Furthermore, instilling media literacy from an early age is essential to enable students to filter out accurate information and disseminate bias in the media they consume (Matli, 2024). In the post-truth era, the ability to distinguish between fact and opinion is essential to developing critical thinking (Saeidnia et al., 2025). Through a curriculum that critically analyzes various sources of information and encourages open debate, children can be taught not to easily believe fake news or stories (Boler et al., 2024). Basic education not only provides mastery of academic knowledge but is also an important tool in building social and media awareness that is able to face the challenges of the digital era and the continuous flow of information (Macías Urrego et al., 2024).

## **2.2. Critical Thinking Through Interactive and Collaborative Learning Approaches**

This theory highlights the importance of interactive and collaborative learning approaches in improving critical thinking skills of elementary school students (Fitriadi et al., 2025). This theory emphasizes the need to involve students in the learning process through discussions, debates, and group projects that stimulate them to analyze multiple perspectives (Zolfaghari et al., 2025). By directly involving students in the analytical thinking process, they will be better able to identify biases, build logical arguments, and critically analyze sources of information (Melisa et al., 2025). This theory also encourages healthy curiosity and questioning, which are important pillars in building social awareness and sensitivity to complex social issues (Tafese & Kopp, 2025). In the context of the post-truth era, critical thinking skills developed through this approach help children filter information objectively and avoid the influence of misinformation (Ahmed, 2024). Elementary education should adopt learning strategies that encourage active and collaborative participation, as this is the main method for developing critical thinkers who are able to respond to social dynamics and available information (Magaretha Sinaga & Rahmawati Muhammad, 2024).

## **2.3. Moral Education, Social Awareness, and Moral Reasoning**

This theory asserts that character and moral development in basic education contribute significantly to the formation of social awareness and critical attitudes towards information (Mothafar et al., 2024). By instilling values such as honesty, responsibility, and empathy from an early age, students are taught to value diversity and respect other people's points of view (Lin et al., 2025). Moral education also encourages children to think ethically when faced with the information and news they receive, especially in the post-truth era full of messages and misinformation (Farooq et al., 2024). Through activities focused on moral development, such as ethical discussions and case studies, students learn to absorb and disseminate information from an ethical and social perspective (Biagini, 2025). This approach not only builds social awareness but also instills a healthy skepticism towards inadequate information (Konstantinou & Karapanos, 2025). Thus, moral education becomes an important foundation for developing critical, responsible, and socially conscious citizens in an increasingly complex world filled with various forms of misinformation (Cuevas-Cerveró et al., 2023).

## **3. Method**

### **3.1. Research Design**

The research method used is quantitative with a descriptive survey approach to obtain objective and measurable data related to the level of media literacy and critical thinking skills of elementary school students in Ternate (Almethen & Alomair, 2024). Research indicators include aspects of media literacy mastery, the ability to distinguish facts from opinions, and critical attitudes towards digital information, including the ability to analyze news sources and identify hoaxes. In addition, indicators also include the level of student understanding of social values and character that need to be built through media literacy. Meanwhile, the research steps begin with the preparation of instruments in the form of valid and reliable questionnaires, followed by data collection by distributing questionnaires to selected students. The collected data are then analyzed using descriptive and inferential statistics, such as regression and correlation tests, to determine the relationship between variables and determine the factors

that influence media literacy and critical thinking skills of elementary school students. This process ends with the interpretation of the results.

### 3.2. Respondent

The respondents in this study were elementary school students in Ternate City. The population was all fourth, fifth, and sixth grade students from 12 elementary schools in Ternate City, with a sample size of 460 students. The sampling technique used a stratified random sampling procedure, ensuring that each grade level had an equal chance of being selected, and the data obtained accurately reflected the conditions on the ground.

**Table 1.** Distribution of Respondents by Gender

Gender	Respondent	Percentage
Man	235	48.91
Woman	225	51.08
Amount	460	100.00

Table 1 shows that the gender distribution among respondents is fairly balanced, with nearly 49% male and 51% female. This is important because it ensures that the analysis reflects the perspectives of both genders proportionally, making the results more representative and reliable.

### 3.3. Data Collection

The data collection technique in this study was conducted through a survey. The survey aimed to obtain objective and statistically measurable data regarding the level of media literacy and critical thinking skills of elementary school students in Ternate. The main instrument used was a questionnaire that had been tested for validity and reliability to ensure the consistency and accuracy of the collected data. The research instrument included several key indicators, such as mastery of media literacy, the ability to distinguish between fact and opinion, and a critical attitude towards digital information, including the ability to analyze news sources and identify hoaxes. Furthermore, there were indicators related to students' understanding of social values and character that need to be developed through media literacy. The questions in the questionnaire were specifically designed to measure the extent to which students were able to understand news content, recognize bias, and apply digital ethics when interacting on social media. Data collection was carried out by distributing questionnaires to the research sample, namely 460 students in grades 4 to 6 from 12 elementary schools in Ternate City selected using stratified random sampling. The questionnaire distribution process was carried out directly under the supervision of researchers and educators at the elementary schools where the research was conducted, thus ensuring the level of data validity. Students were given sufficient time to complete the questionnaire independently, and during the filling process, data collectors supervised participants to understand each question and fill it in according to their understanding. Students rated the instrument on a Likert scale of points (1) to points (5) namely from strongly disagree to strongly agree. The following are the indicators and research instruments used in Analyzing the Role of Education in Shaping Critical Thinking Starting from Elementary School.

**Table 2.** Research Indicators and Instruments

No	Indicator	Item
1	Media literacy mastery aspect	Are you able to understand the content of the news you read in the mass media? When you get information from the media, can you briefly explain what is being conveyed? Can you identify the main message of an article or news item? How do you ensure that the information you receive from the media is correct and reliable? Are you able to follow the storyline or explanation in digital media?

No	Indicator	Item
		<p>How often do you double-check information before believing it?</p> <p>Are you able to understand news delivered in writing or visually?</p> <p>When reading the news, can you determine who the source of the information is?</p> <p>Are you able to understand the context of a particular media message?</p> <p>How do you deal with information that is difficult to understand from the media?</p>
2	Ability to distinguish between facts and opinions	<p>Can you tell the difference between factual news and personal opinion in the media?</p> <p>When reading an article, can you determine which part is a fact?</p> <p>How do you know if an opinion is presented as a fact?</p> <p>Are you able to mention some characteristics of factual news?</p> <p>When reading news, do you always question whether it is just the author's opinion?</p> <p>How do you ensure that the information you receive is a true fact?</p> <p>Do you realize that opinions can be influenced by the author's point of view?</p> <p>Are you able to write the difference between fact and opinion when making a news summary?</p> <p>How important do you think it is to understand this difference in digital media?</p> <p>Have you ever felt confused about the difference between fact and opinion? How did you overcome it?</p>
3	Critical attitude towards digital information	<p>Do you always check the authenticity of the news source before believing it?</p> <p>How do you identify fake news in online media?</p> <p>Have you ever felt doubtful about the news you receive in digital media?</p> <p>How important do you think it is to check the truth of a news item before spreading it?</p> <p>Are you able to identify a reliable news source?</p> <p>How do you assess whether a news item on social media is credible?</p> <p>Have you ever learned about the characteristics of fake news?</p> <p>How do you avoid spreading fake news?</p> <p>How often do you verify information from digital media with other sources?</p> <p>Do you try to educate others about the importance of being sceptical of online news?</p>
4	Students' understanding of social values and character that must be developed through media literacy	<p>Do you understand the importance of respecting others when commenting on online media?</p> <p>How can media help you build an honest and responsible character?</p> <p>Are you aware that media use must be in accordance with social values in society?</p> <p>To what extent are you able to apply ethics when interacting on digital media?</p> <p>Are you aware that media can influence your attitude and personality?</p>

No	Indicator	Item
		How can media help strengthen a sense of togetherness and tolerance?
		Do you believe that media literacy is important for developing empathy and caring attitudes?
		How do you use media to instil positive values in yourself and others?
		Have you ever thought about the impact of media on your character and society?
		How can media help you become a socially responsible individual?

The following are the boundaries between the indicators shown in Table 2. The media literacy indicator focuses on mastery of media content, the ability to follow the flow of information, and how to verify the accuracy of received messages. The primary focus is how a person understands and processes information from written and visual media. Conversely, the indicator for the ability to distinguish between fact and opinion focuses on the accuracy of content analysis, namely, the ability to distinguish between factual information and the author's point of view. This indicator emphasizes identification skills, distinguishing characteristics, and awareness of potential bias in media texts. The indicator for critical attitudes toward digital information focuses on evaluative procedures. This is manifested in the ability to verify sources, identify fake news, assess the credibility of social media, and even prevent the spread of falsehoods. Critical attitudes are not limited to mere understanding; they also include caution and the practice of verifying the accuracy of information. Meanwhile, the understanding of social and personal values through the media literacy indicator focuses on emotional aspects and character development, emphasizing how media literacy promotes ethics, responsibility, empathy, tolerance, and prosocial attitudes in digital interactions.

### 3.4. Data Analysis

This study relies on descriptive statistics processed using SPSS version 29.0 (Zaščirinska et al., 2024). This analysis technique was chosen to provide a comprehensive overview of the respondents' characteristics and the context of the variables studied, such as media literacy, the ability to distinguish between fact and opinion, and critical attitudes toward digital information. Data processing included calculating frequencies and percentages to determine the distribution of respondents in each response category, as well as calculating means and standard deviations to assess the level of centralization and distribution of data for each measured indicator. In this context, frequency and percentage statistics help illustrate the distribution of students' responses on specific aspects, such as the ability to understand news content and attitudes toward digital ethics. Meanwhile, calculating means and standard deviations provides an overview of the respondents' general situation and data variance compared to the mean. The results of this descriptive statistical analysis were used to visualize the overall data patterns and distribution, indicating the level of media literacy and critical attitudes of students in the study group as a whole. This data also helped identify areas requiring special attention in future curriculum development or learning activities. With the assistance of SPSS version 29.0, data processing was faster and more accurate, making it easier for researchers to compile research reports. Data analysis techniques using SPSS Version 29.0 were used, providing a comprehensive overview of field conditions before conducting inferential statistical analysis to examine regression. This analysis is used to support decision-making or develop more effective future educational processes and data accuracy.

### 3.5. Validity and reliability

In this study, a content validation test was also conducted with the aim of ensuring that the items in the questionnaire were empirically capable of measuring the intended construct, while the reliability test was used to test the internal consistency of the instrument. To test reliability, Cronbach's alpha was used with a minimum value of 0.60. If Cronbach's alpha is greater than 0.60, then the instrument is considered reliable and has a good level of internal consistency, so that the collected data can be relied upon for further analysis. Conversely, if Cronbach's alpha

is less than 0.60, then the instrument is considered unreliable and the instrument items need to be improved or replaced so that the measurement results are more accurate and consistent (Rodríguez-Gómez et al., 2024). All items in this study were deemed valid with a score of 0.96. The instrument met reliability requirements, and the data were processed using descriptive statistical analysis, calculating the frequency, percentage, mean, and standard deviation for each variable and indicator in the questionnaire.

#### 4. Findings

The following are the results of the study on the overall distribution of respondents regarding the analysis of the Role of Education in Shaping Students' Critical Thinking Since Elementary School.

##### 4.1. Students' Social Awareness in Mastering Media Literacy

Table 3 shows the distribution of elementary school students' social awareness levels in media literacy skills. Of the 460 participants, 60 students, or 13.04%, fell into the weak category with a score of  $\leq 2.49$ , while 68 students, or 14.78%, fell into the average category (2.50–3.49). A total of 132 students, or 28.69%, fell into the excellent category with a score of 3.50–4.00. These percentages indicate that although some groups remained weak, the majority of students had good social awareness.

**Table 3.** Social Awareness Index of Elementary School Students before Obtaining the Truth

	Respondent	Percentage
Weak (2.49 and below)	60	13.04
Medium (2.50-3.49)	68	14.78
Excellent (3.50-4.00)	132	28.69
Amount	460	100

Table 4 shows that the achievement results in media literacy skills vary. The highest scores were obtained for the news content comprehension index, with an average of 4.06 and a standard deviation of 0.55166, and for handling difficult-to-understand information, with the same average of 4.06. The ability to explain concise information scored 3.93 (standard deviation of 0.64170), while the ability to trace the flow of digital media explanations recorded an average of 3.86 (standard deviation of 0.71288). The ability to identify information sources scored 3.51 (standard deviation of 0.55742), and the ability to understand the context of a message scored 3.17 (standard deviation of 0.55087).

**Table 4.** Assessment Results of Media Literacy Mastery Aspects

Indicator	Item	N	Mean	Std. Deviation
Media literacy mastery aspect	Are you able to understand the content of the news you read in the mass media?	460	4.06	.55166
	When you get information from the media, can you briefly explain what is being conveyed?	460	3.93	.64170
	Can you identify the main message of an article or news item?	460	1.90	.51577
	How do you ensure that the information you receive from the media is correct and reliable?	460	2.77	.67985
	Are you able to follow the storyline or explanation in digital media?	460	3.86	.71288
	How often do you double-check information before believing it?	460	2.84	.49912
	Are you able to understand news delivered in writing or visually?	460	2.48	.84834

Indicator	Item	N	Mean	Std. Deviation
	When reading the news, can you determine who the source of the information is?	460	3.51	.55742
	Are you able to understand the context of a particular media message?	460	3.17	.55087
	How do you deal with information that is difficult to understand from the media?	460	4.06	.55166

However, the lowest indicator was the ability to identify the main message, with an average of only 1.90 (standard deviation of 0.51577). In addition, the understanding of written and visual news is still low, namely 2.48 (standard deviation 0.84834), the ability to ensure the reliability of information obtained a score of 2.77 (standard deviation 0.67985), and the ability to verify information before believing it obtained a score of 2.84 (standard deviation 0.49912).

#### 4.2. Students' Ability to Distinguish Between Facts and Opinions

The ability to distinguish fact from opinion is a crucial skill in digital media literacy. Students are required not only to understand the content of the reading but also to identify objective and subjective information. The measurement results in Table 5 show varying skill levels, reflecting students' analytical skills related to media information.

**Table 5.** Results of the ability to distinguish between facts and opinions

Indicator	Item	N	Mean	Std. Deviation
Ability to distinguish between facts and opinions	Can you tell the difference between factual news and personal opinion in the media?	460	3.93	.64170
	When reading an article, can you determine which part is a fact?	460	4.06	.55166
	How do you know if an opinion is presented as a fact?	460	3.93	.64170
	Are you able to mention some characteristics of factual news?	460	1.90	.51577
	When reading news, do you always question whether it is just the author's opinion?	460	2.77	.67985
	How do you ensure that the information you receive is a true fact?	460	3.86	.71288
	Do you realize that opinions can be influenced by the author's point of view?	460	2.84	.49912
	Are you able to write the difference between fact and opinion when making a news summary?	460	2.48	.84834
	How important do you think it is to understand this difference in digital media?	460	3.51	.55742
	Have you ever felt confused about the difference between fact and opinion? How did you overcome it?	460	3.17	.55087

The analysis results in table 5 show that the highest ability is identifying factual aspects, with a mean of 4.06 and a standard deviation of 0.55166. Followed by the ability to distinguish factual news and media opinions, with a score of 3.93 (standard deviation of 0.64170), and the ability to recognize opinions presented as facts, with a score of 3.93. The ability to ensure the accuracy of information scored 3.86 (standard deviation of 0.71288), while awareness of the importance of distinguishing facts and opinions in digital media was 3.51 (standard deviation of 0.55742). Students who were able to overcome confusion about the difference between the

two obtained an average of 3.17 (standard deviation of 0.55087). In contrast, the lowest scores were found in the ability to identify the characteristics of factual news, with a mean of 1.90 (standard deviation of 0.51577), the ability to write the difference between fact and opinion in a summary, with a mean of 2.48 (standard deviation of 0.84834), and the ability to recognize that opinion is influenced by the author's point of view, with a mean of 2.84 (standard deviation of 0.49912). These results confirm that conceptual understanding is relatively good, but application skills are still weak.

### 4.3. Students' Critical Attitude Towards Digital Information Received

A critical attitude toward digital information is crucial to preventing the spread of misinformation among students. Students must equip themselves with the skills to verify sources, assess their credibility, and identify fake news. The measurement results in Table 6 below demonstrate concrete results regarding students' critical thinking skills in navigating the flow of online information.

**Table 6.** Results of critical attitudes towards digital information

Indicator	Item	N	Mean	Std. Deviation
Critical attitude towards digital information	Do you always check the authenticity of the news source before believing it?	460	4.06	.55166
	How do you identify fake news in online media?	460	3.93	.64170
	Have you ever felt doubtful about the news you receive in digital media?	460	1.90	.51577
	How important do you think it is to check the truth of a news item before spreading it?	460	2.77	.67985
	Are you able to identify a reliable news source?	460	3.86	.71288
	How do you assess whether a news item on social media is credible?	460	2.84	.49912
	Have you ever learned about the characteristics of fake news?	460	4.06	.55166
	How do you avoid spreading fake news?	460	3.93	.64170
	How often do you verify information from digital media with other sources?	460	1.90	.51577
	Do you try to educate others about the importance of being skeptical of online news?	460	2.77	.67985

The results in Table 6 show that students achieved high scores in verifying news sources, with a mean of 4.06 and a standard deviation of 0.55166. Similar scores were also obtained for understanding the characteristics of the fake news index, indicating relatively good awareness. Both the hoax identification index and efforts to prevent its spread scored 3.93 (standard deviation of 0.64170). The average ability to identify trustworthy sources was 3.86 (standard deviation of 0.71288), while the assessment of news credibility on social media only scored 2.84 (standard deviation of 0.49912). The index for the importance of fact-checking before publishing news scored 2.77 (standard deviation of 0.67985), which is in line with efforts to educate others about scepticism towards online news, which also scored 2.77. Meanwhile, students' scepticism toward digital news and their habit of verifying information from other sources had the lowest average scores, both at 1.90 (standard deviation 0.51577). These results indicate a gap in theoretical understanding, although they have excellent results, but verification and critical thinking practices still need to be strengthened.

### 4.4. Students' Understanding of Social Values and Character Developed through Media Literacy at School and at Home

Understanding social values and character building through media literacy is crucial for students interacting in digital spaces. Media serves not only as a source of information but also

as a means to instill ethics, empathy, responsibility, and an awareness of the social implications of using communication technology.

**Table 7.** Results of Students' Understanding of Social Values Through Media Literacy

Indicator	Item	N	Mean	Std. Deviation
Students' understanding of social values and character that must be developed through media literacy	Do you understand the importance of respecting others when commenting on online media?	460	3.86	.71288
	How can media help you build an honest and responsible character?	460	2.84	.49912
	Are you aware that media use must be in accordance with social values in society?	460	2.48	.84834
	To what extent are you able to apply ethics when interacting on digital media?	460	3.51	.55742
	Are you aware that media can influence your attitude and personality?	460	3.17	.55087
	How can media help strengthen a sense of togetherness and tolerance?	460	4.06	.55166
	Do you believe that media literacy is important for developing empathy and caring attitudes?	460	3.93	.64170
	How do you use media to instill positive values in yourself and others?	460	1.90	.51577
	Have you ever thought about the impact of media on your character and society?	460	2.77	.67985
	How can media help you become a socially responsible individual?	460	3.86	.71288

The results in Table 7 show that the highest indicator is using media to foster a sense of connectedness and tolerance, with a mean of 4.06 and a standard deviation of 0.55166. The belief that media literacy plays a role in fostering empathy scored 3.93 (standard deviation of 0.64170). Understanding the importance of respecting others when commenting online and the role of media in shaping social responsibility both scored 3.86 (standard deviation of 0.71288). The ability to apply ethics during digital interactions scored 3.51 (standard deviation of 0.55742), while awareness of the impact of media on attitudes and personality scored 3.17 (standard deviation of 0.55087). In contrast, the ability to use media to instill positive values remained low, with a mean of 1.90 (standard deviation of 0.51577). The level of awareness that media use should be consistent with social values was only 2.48 (standard deviation 0.84834), while the level of thinking about its impact on oneself and society was 2.77 (standard deviation 0.67985). Although students are considered good in terms of moral awareness, they are still weak in the practical application of social values.

**Table 8.** Descriptive Social Awareness in the Post-Truth Era in Forming Critical Thinking in Elementary Schools

No	Indicator	N	Mean	Std. Deviation
1	Media literacy mastery aspect	460	3.32	.21983
2	Ability to distinguish between facts and opinions	460	3.08	.16160
3	Critical attitude towards digital information	460	3.12	.25069
4	Students' understanding of social values and character that must be developed through media literacy	460	3.14	.19581

Based on Table 8, it can be seen that students' ability to master aspects of media literacy obtained the highest average score, namely 3.32 from a certain scale, with a standard deviation of 0.21983, which indicates a fairly good understanding. The ability to distinguish facts and opinions had an average score of 3.08 and a standard deviation of 0.16160, which indicates a fairly consistent level of understanding. Meanwhile, a critical attitude towards digital information and an understanding of social values and character developed through media literacy each obtained scores of 3.12 and 3.14 with standard deviations of 0.25069 and 0.19581, which indicates that although quite good, there is still room for improvement in this aspect.

**Table 9.** Correlation Social Awareness in the Post-Truth Era in Forming Critical Thinking in Elementary Schools

Social Awareness in the Post-Truth Era by Shaping Critical Thinking in Elementary Schools.	Pearson Correlation	1	0.041
	Sig. (1-tailed)		0.047
	N	460	460
	Pearson Correlation	.035	1
	Sig. (1-tailed)	.303	
	N	460	460

\*p < 0.05

Table 9 shows the results of a weak positive correlation study of 0.041 between social awareness in the post-truth era and critical thinking in elementary schools, with a significance value of 0.047 (p < 0.05). This indicates a significant but weak relationship between the two variables.

**Table 10.** ANOVA Social Awareness in the Post-Truth Era in Forming Critical Thinking in Elementary Schools

	Sum of Squares	df	Mean Square	F	Sig.
Outside Class	1.391	459	0.721	8.102	.001
In Class	6.710		0.102		
Total	8.101	459			

\* p < 0.05

Based on Table 10, the effect of social awareness outside the classroom on the development of critical thinking skills is 0.721 and is statistically significant with p = 0.001. This indicates that social awareness outside the classroom has a greater and more meaningful influence compared to social awareness inside the classroom, which only has an average value of 0.102. These results emphasize the importance of social activities outside the classroom in improving the critical thinking skills of elementary school students.

**Table 11.** Post Hoc Test Multiple Comparisons of Independent Variables: Social Awareness in the Post-Truth Era in Forming Critical Thinking in

Indicator (1,2,3,4)	Mean Difference (1-4)	Std. Error	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
Media literacy mastery aspect	2 .23357*	.03968	.001309	.3363	
Media literacy mastery aspect	3 .19194*	.03932	.000902	.2937	
Media literacy mastery aspect	4 .17366*	.03932	.000719	.2755	
Ability to distinguish between facts and opinions	1 -.23357*	.03968	.001309	-.3363	
Ability to distinguish between facts and opinions	3 -.04163	.03968	.721443	.0611	
Ability to distinguish between facts and opinions	4 -.05990	.03968	.431626	.0428	
Critical attitude towards digital information	1 -.19194*	.03932	.002937	-.0902	
Critical attitude towards digital information	2 .04163	.03968	.720611	.1443	
Critical attitude towards digital information	3 -.01827	.03932	.971201	.0835	
Students' understanding of social values and character that must be developed through media literacy	1 -.17366*	.03932	.002755	-.0719	
Students' understanding of social values and character that must be developed through media literacy	2 .05990	.03968	.430428	.1626	
Students' understanding of social values and character that must be developed through media literacy	3 .01827	.03932	.970835	.1201	

\*p &lt; 0.05

Based on the results of Table 11, there are significant differences in the aspect of media literacy mastery, with statistically different mean values between groups ( $p < 0.05$ ). Specifically, this aspect shows mean difference values of 0.23357, 0.19194, and 0.17366, all of which are positive and significant, indicating that increased media literacy mastery is related to the development of critical thinking. In contrast, the ability to distinguish between fact and opinion has varying effects; the mean differences between groups 1 and 4 are -0.23357 and -0.05990, but not all are statistically significant ( $p > 0.05$ ). The aspects of critical attitudes towards digital information and understanding social values and character show variations, but not all are significant. Overall, these results indicate that media literacy mastery contributes significantly to the development of critical thinking and social awareness in social media.

## 5. Discussion

This finding aligns with media literacy theory and critical thinking theory, which serve as the primary foundation of this research. Media literacy is an individual's ability to access, analyze, evaluate, and create easily understood media (Burth et al., 2024). Media literacy skills are essential for developing a critical attitude toward information obtained from digital media. Furthermore, the critical thinking theory developed emphasizes the importance of evaluating arguments, recognizing bias, and distinguishing fact from opinion (Melisa et al., 2025). These two theories support the assumption that the higher the mastery of media literacy, the better the ability of elementary school students to think critically and the better the students' social awareness, especially before obtaining valid and correct information to avoid fake news (Gili & Maddalena, 2022).

The study found a significant relationship between media literacy skills and the development of critical thinking and social awareness before obtaining correct and valid information. The analysis showed that the general media literacy mastery aspect obtained an average score of 3.32 on a certain scale, indicating a fairly good level of mastery but still needs to be improved. Specifically, the aspect of the ability to distinguish between facts and opinions was one of the main focuses. In this aspect, the average score of 3.08 indicates that students are able to understand the differences in general, but there are still shortcomings in their practical application, especially in the context of critically assessing news authenticity. The results of the statistical analysis, as seen in Table 8, show that there are significant differences between student groups based on the level of media literacy mastery related to its influence on critical thinking and social awareness aspects. For example, the media literacy mastery aspect

showed a significant difference with a p value  $<0.05$ , which means that increasing media literacy mastery has a positive effect on students' critical thinking skills and social awareness. Furthermore, the correlation results showed a weak but significant relationship between social awareness and critical thinking ( $r = 0.041$ ,  $p = 0.047$ ). These findings confirm that although the correlation is not strong, there is a significant positive relationship. Students' ability to understand and internalize social values significantly influences their critical thinking process in evaluating digital information.

Furthermore, the ANOVA analysis shows that the success of improving critical thinking is closely related to social activities outside the classroom, showing an F value of 8.102 and  $p = 0.001$ . These results confirm that social experiences outside of formal environments, such as activities in the community or social environments outside the classroom, can strengthen students' analytical and evaluation skills regarding the information they receive. Students who are more socially active tend to be more critical of news and able to sort facts from opinions, as well as apply social values in the use of digital media. In terms of social development, the results of Table 3 show that the majority of students are in the good social awareness category, even reaching the 'very good' category at 28.69%. However, approximately 27.82% of students are still in the "weak" and "moderate" categories, indicating the need to strengthen media literacy and character education so that all students are able to understand and apply social values effectively. The main causes of challenges in developing social awareness and critical thinking in this post-truth era include the lack of formal learning on how to verify information, limited social experiences outside the classroom that can increase empathy and tolerance, and the influence of digital media which often displays inaccurate information. Students tend to have difficulty distinguishing fact from opinion due to the diverse sources they access and the widespread prevalence of hoax news. Therefore, more intensive education and training are needed to enable them to use media responsibly.

In line with the findings of this study, other research has revealed that media literacy learning must be integrated with critical thinking and social character learning, so that students are not only able to recognize fake news, but also able to cultivate empathy, respect for others, and uphold social values in interacting in the digital world. Therefore, comprehensive learning interventions that integrate social, critical, and media literacy aspects are crucial in this post-truth era to prepare a young generation who is not only academically intelligent but also has a strong social character. Similar Research Several previous studies have also shown a relationship between media literacy and the development of critical thinking and social awareness. Media literacy education can improve students' critical analysis skills regarding media content and strengthen elementary school students' social attitudes that are responsible for the information they receive (Ziapour et al., 2024). Media literacy learning contributes positively to increasing social empathy and the ability to critically evaluate news (Zou et al., 2024). Increasing mastery of media literacy has a positive impact on the development of critical thinking and social awareness, while also emphasizing the importance of media literacy education in equipping students to face the challenges of the digital and post-truth eras (Ariya et al., 2025).

## **6. Conclusion**

The study concluded that elementary school students' media literacy and social awareness levels have improved significantly. Elementary school students' understanding of distinguishing facts from opinions in social media and their critical attitude toward digital information are good. However, in practice, some students still need to strengthen their media literacy, especially in terms of verifying news authenticity and assessing information sources. Media literacy plays a crucial role in developing critical thinking patterns, as well as shaping students' ability to assess the truth and validity of news they encounter in the media they read and view. This study concluded that the success of improving critical thinking skills is strongly influenced by social experiences outside the classroom that can enrich empathy, tolerance, and social character. Social activities carried out in the community can strengthen students' analytical skills and critical attitudes toward digital news and information. Furthermore, a well-developed

level of social awareness indicates that most students are able to understand the social values and character that need to be developed through media literacy. However, some elementary school students still fall into the category that requires more attention regarding their understanding of social media literacy. Therefore, educational intervention is needed to integrate social media with learning materials, where each design and implementation of learning materials can integrate social media aspects around the students' learning environment. The findings of this study can provide educators with insights to equip the younger generation to act wisely and responsibly in accessing and disseminating digital information, while also strengthening their social character and empathy for their community. With a sound understanding of social media literacy, the next generation will not only be academically intelligent but also possess social sensitivity and integrity to face future challenges.

### **Limitation**

A limitation of this study that needs to be addressed is the use of quantitative methods that only measure certain aspects of media literacy and social awareness without exploring students' subjective experiences and perspectives in depth. Furthermore, another limitation of this study is the sample size, which was limited to one elementary school level, not representing the entire student population across various fields and with diverse sociocultural backgrounds. The instrument used was a self-assessment measure, making it susceptible to bias in respondents' perceptions and honesty. Students' age and cognitive level also influence their ability to understand and apply concepts taught through social media, and these factors could not be fully controlled for in this study.

### **Recommendation**

Recommendations for future research include combining quantitative and qualitative approaches to gain a more comprehensive picture of media literacy and social awareness. Qualitative approaches, such as in-depth interviews, can explore students' experiences and the factors influencing their critical and social attitudes. Furthermore, research involving samples from diverse regions with different cultural backgrounds and different school social media usage is needed to increase the generalizability of the results. Future research could also expand the measurement of specific aspects of media literacy and social character that have not been widely explored, including the influence of social media and other digital technologies. It is also recommended that future research examine the role of teachers and the learning environment in developing students' social media literacy and social character to gain a more effective understanding of educators' role in shaping students' critical thinking.

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### **Conflict of Interest**

The author(s) declare(s) that there is no conflict of interest.

### **Declaration of Generative AI-assisted Technologies**

This manuscript was prepared without the aid of Generative AI. All intellectual contributions, critical analysis, and final revisions were made by the author. The author(s) assumes full responsibility for the accuracy, originality, and integrity of the content presented in this work.

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