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Analysis of Basic Scientific Literacy Abilities in the Independent Curriculum to Determine the Critical Thinking Abilities and Character of Participants Educated Grade IV in Elementary School

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ABSTRACT

This research is motivated by the fact that teachers should have adequate abilities in planning and implementing learning. One alternative that can be done in order to solve the problem above is to implement science learning, which does not only emphasize mastery of concepts but also pays attention to other aspects and provides information about initial scientific literacy abilities. This is important to know in order to provide the right solution to the problem. faced. This research aims to find out how to analyze basic scientific literacy skills in the independent curriculum in order to determine the critical thinking abilities and character of class IV students at SD Negeri 1 Landungsari, Malang Regency. The method used in this research is descriptive quantitative research using primary data sources and secondary data. The research results show that students have good integrity, as can be seen from the high percentage who agree to reprimand friends who cheat. This attitude is important in the context of scientific literacy, where honesty and reliability in the process of collecting and analyzing data are the keys to valid scientific understanding. However, there are variations in students' learning independence; some still need encouragement from parents. This shows that although their basic scientific literacy skills are strong, there is still room for improvement in developing independent learning abilities and personal initiative, which are important aspects of critical thinking skills. Overall, this research shows that basic scientific literacy skills have a positive influence on students' critical thinking skills. With a learning environment that is supportive, inclusive, and emphasizes the values of integrity and cooperation, students at SD Negeri 1 Landungsari Malang Regency can develop these two skills more effectively. The proper implementation of the Independent Curriculum can further strengthen this relationship, helping students become intelligent, critical individuals and ready to face future challenges.

Keywords: Independent curriculum, Science, Literacy, Thinking ability

INTRODUCTION

Education is very important to improve the quality of human resources; without education, humans will lag behind in the aspect of science. Education is a process with certain methods so that people gain knowledge, understanding, and ways of behaving in accordance with their needs.

Scientific literacy-based learning is the main thing in 21st century education and is also known as the current era, which is characterized by the rapid development of science and technology. Several types and characteristics of literacy that are prioritized in efforts to develop students' multiliteracy skills so that they can influence the actualization of character values can be realized, namely scientific literacy, numeracy, reading and writing, financial, digital, and culture and citizenship (Wiratsiwi, 2020).Science and technology are developing so rapidly that scientific literacy skills are very much needed. This condition cannot be separated from the role of education, one of which is science learning. Science learning has an important role in producing students who have globally competitive abilities and skills in critical thinking, logical thinking, creative thinking, and innovation. One of the lessons taught in elementary schools is the science subject. Science, or Natural and Social Sciences, is one of the subjects taught in elementary schools. IPAS contains learning about science and social science, which includes studies about nature, technology, the environment, geography, history, and culture. There are several learning theories that are relevant to science learning, namely constructivism theory, cooperative learning theory, and project-based learning theory.

Therefore, learning methods are needed that can prepare students to have good competencies and be literate in science and technology, able to think logically, critically, creatively, argue correctly, and be able to communicate and collaborate. Scientific literacy can be termed scientific literacy skills, namely the ability to understand science, communicate science (orally and in writing), and apply scientific abilities to solve problems so as to have a high attitude and sensitivity towards oneself and one's environment in making decisions based on scientific considerations. Scientific literacy is important for students so that they not only understand science as a concept but can also apply science in everyday life. According to the National Research Council (1996) in Ardianto and Rubbini, scientific literacy is important to develop because (1) it provides personal satisfaction and pleasure that arises after understanding and studying science; (2) everyone needs information and scientific thinking for decision-making; (3) everyone needs to involve their abilities in public discourse and debate regarding important issues involving science and technology; and (4) scientific literacy is important in the world of work, so it requires people to learn science, reason, think creatively, make decisions, and solve problems.

However, among these problems there are other problems, namely the ability to think critically and the character of students. Critical thinking is a thought process where someone manages their thinking more deeply—not how to think hard, but how their critical thinking skills are processed in more detailed thinking, something that is made concrete. According to Hidayah (2014:25), critical thinking is a cognitive activity related to the use of reasoning/thinking powers. Meanwhile, according to Slameto (2015:51), thinking is an activity to find true knowledge. Therefore, each person has a different thinking pattern because the knowledge process is critical from a perspective.

Critical thinking ability is a model of thinking about any matter, substance, or problem in which the thinker improves the quality of his thinking by skillfully handling the structures inherent in thinking and applying intellectual standards to them (Fisher, 2002). Meanwhile, critical thinking skills train students to make decisions from various points of view carefully, thoroughly, and logically. With critical thinking skills, students can consider other people's opinions and express their own opinions. Followed by the character of students who have their own potential such as talents, interests, needs, and so on. Every student has unique potential, including talents, interests, and needs.

Therefore, students must grow through teaching and instruction in order to grow and develop. In this modern era of education, the diverse characteristics of students must be taken into account and paid attention to in teaching and learning activities. Because the implementation of teaching and learning activities in schools must be in accordance with the characteristics, learning styles, and intelligence of each student. This is in line with Yeti and Mumuh (2014: 72), who state that students in educational activities are the main target of all related educational activities. From the description above, the characteristics, learning styles, and intelligence of students are things that education practitioners need to know, especially educators who directly guide these students.

To be tolerant of classmates with different personalities, classmates also need to recognize differences in characteristics. Student characteristics that can be identified as factors that greatly influence the learning process and outcomes are intelligence, initial abilities, cognitive style, learning style, motivation, and socio-cultural factors. Information about the level of development of students' intelligence is very necessary as a basis for choosing components in learning, such as learning objectives, materials, media, learning strategies, and evaluation (Gardner, 1993).

The characteristics of students are very important for teachers to use as a reference in formulating teaching strategies. Teaching strategies consist of methods and techniques or are based on the results of interviews conducted by the author with the fourth grade homeroom teacher at SD Negeri 1 Landungsari, Malang Regency, obtaining information that in learning activities, teachers find it difficult to learn independently and actively because students are used to direct material. given to him, this also causes students to be less active in exploring their own knowledge; students are less able to relate one concept to other concepts that have been studied, as evidenced by the students' inability to answer questions that require initial scientific literacy skills. Apart from that, students' scientific literacy abilities and the factors that influence them are not yet known because the evaluation questions given by teachers are not yet oriented towards measuring scientific literacy but are only limited to measuring students' knowledge about the material being studied.

The curriculum plays an important role in education because it is related to determining the direction, content, and process of education, which ultimately determines the qualifications of graduates of an educational institution. Along with developments in time and demands from society, the world of education must innovate in education. Educational innovation will run and achieve its targets if the educational program is designed and implemented in accordance with the conditions and demands of the times. As an implication of the importance of educational innovation, it requires awareness of the role of teachers (Fatmawati, 2021).

The Merdaka curriculum is a curriculum with diverse intracurricular learning where the content will be more optimal so that students have enough time to deepen concepts and strengthen competencies. Teachers have the freedom to choose various teaching tools so that learning can be tailored to the learning needs and interests of students. Projects to strengthen the achievement of the Pancasila student profile are developed based on certain themes determined by the government. The project is not directed at achieving specific learning achievement targets, so it is not tied to subject content.

In this case, teachers have a very vital role in determining student success. Therefore, teachers should have adequate abilities in planning and implementing learning. One alternative that can be done in order to solve the problem above is to apply science learning, which does not only emphasize mastery of concepts but also pays attention to other aspects and provides information

about initial scientific literacy abilities. This is important to know in order to provide appropriate solutions for problems faced. For this reason, the author has conducted research on the scientific literacy of Class IV students. This research focuses on analyzing the basic abilities of scientific literacy in the Independent Curriculum to determine the critical thinking abilities and character of grade IV students at SD Negeri 1 Landungsari, Malang Regency.

MATERIALS & METHODS

The method used in quantitative research is a research method used in researching a population or sample using random sampling techniques using research instruments. This research uses quantitative or statistical analysis in testing the research hypothesis (Surgiyono, 2015). This approach was carried out to answer the initial problem, which became the basis for the research by measuring the variables studied. This type of research is research with a quantitative approach with a descriptive analysis of percentages that brings together research from various primary instruments. Sugiyono (2015) explains: "Descriptive research is "research carried out to determine the value of independent variables, either one or more variables (independent) without making comparisons or connecting them with other variables."

This research approach is descriptive analytical research, research that is intended to examine the hypothesis but only describes "what is" of the variables, symptoms, and conditions. The research data were compiled by using research questionnaires, which were then processed statistically and analyzed. The research was carried out from November 2023 to May 2024 or semester 1 of the 2024/2025 academic year.

RESULT and DISCUSSION

Basic Ability of Scientific Literacy and Critical Thinking in Students Against the Independent Curriculum

Table 1 Results of Basic Critical Thinking Scientific Literacy Skills for Students Against the Independent Curriculum

Items	Statement	Strongly agree		Agree		Don't know		Don't agree		Strongly Disagree		Mean
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	
X1.1	Critical thinking skills are important for basic scientific literacy	14	46.7	16	53.3	0	0	0	0	0	0	4,47
X1.2	Classroom learning requires high concentration	12	40.0	12	40.0	6	20.0	0	0	0	0	4,20
X1.3	Appropriate learning strategies are able to develop literacy skills for students' critical thinking	3	10.0	21	70.0	3	10.0	2	6.7	1	3.3	3,77

Students' basic critical thinking and scientific literacy skills are the main aspect of the Independent Curriculum. Based on the survey results, 46.7% of respondents strongly agreed that critical thinking skills are important for basic scientific literacy, while another 53.3% agreed, resulting in a mean value of 4.47. This shows a strong consensus regarding the importance of critical thinking skills in scientific literacy. Apart from that, learning in classes that require high concentration is also considered important by 40% of respondents who strongly agree and another 40% who agree, with a mean value of 4.20. This indicates that concentration is an important factor in effective learning.Appropriate learning strategies are also recognized as key in developing literacy skills for students' critical thinking, although there are variations in responses. A total of 10% of respondents strongly agreed, 70% agreed, 10% did not know, 6.7% disagreed, and 3.3% strongly disagreed with this statement, resulting in a mean value of 3.77. This data shows that although the majority of respondents agree with the importance of appropriate learning strategies, there are differences in views that reflect the need to adapt strategies that are more appropriate to the learning context of each class. Overall, these findings emphasize the importance of critical thinking skills and appropriate learning strategies in increasing scientific literacy in students in accordance with the principles of the Independent Curriculum.

Basic scientific literacy has a significant influence on the way of thinking of class IV students at SD Negeri 1 Landungsari, Malang Regency. Scientific literacy is not just about understanding scientific concepts but also involves the ability to think critically, analyze information, and solve problems. Through scientific literacy, students are taught to question information, look for evidence that supports or rejects a hypothesis, and make decisions based on data and facts. Applying basic scientific literacy in grade IV helps students develop critical thinking skills. When students are faced with scientific problems or questions, they learn not to accept answers at face value but to explore various possibilities, test hypotheses, and look for valid evidence. This teaches them to think more deeply and analytically, which is part of higher-order thinking skills.

In other cases, scientific literacy also encourages students to work collaboratively. Students often have to discuss with classmates, share ideas, and work together to solve problems. This not only improves their critical thinking abilities but also communication and collaboration skills. At SD Negeri 1 Landungsari, the basic influence of scientific literacy on the way of thinking of class IV students can be seen from the increase in their ability to carry out scientific tasks, carry out experiments, and present the results of students' findings. Students become more confident in expressing their opinions, more skilled in analyzing data, and more accustomed to systematic scientific thinking processes. Basic scientific literacy has a broad positive impact on the way of thinking of class IV students at SD Negeri 1 Landungsari, helping them become more critical, analytical, and collaborative in their approach to learning and problem solving. In this case, the percentage values are as follows:

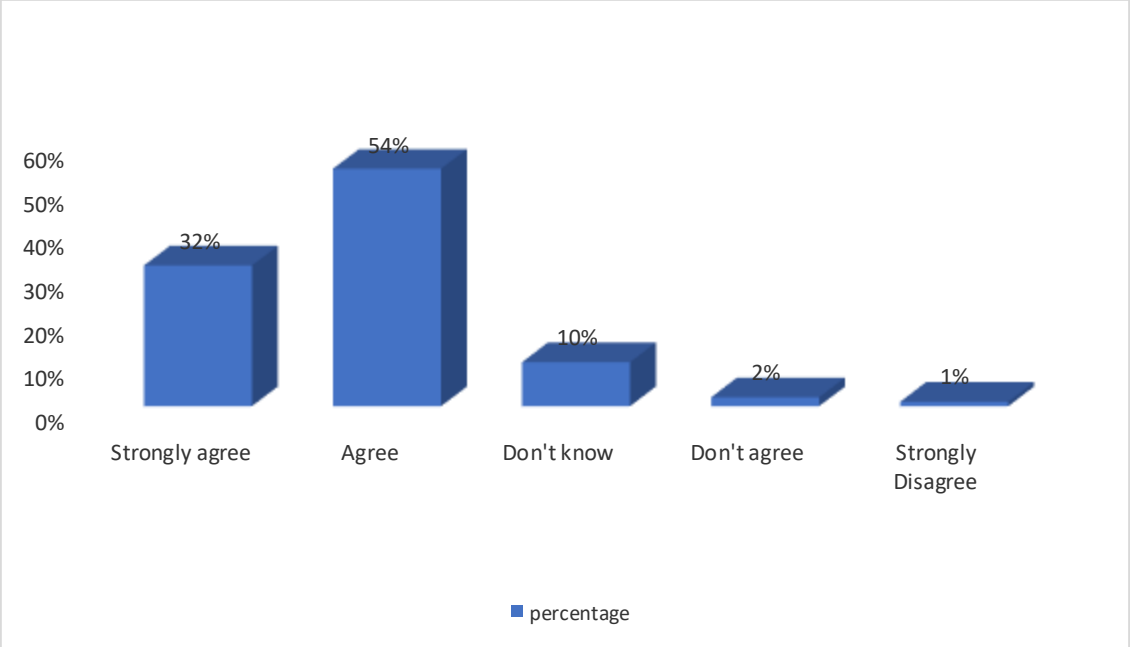

Image 1 of Results of Students' Basic Critical Thinking Scientific Literacy Skills Against the Independent Curriculum

The overall percentage results regarding basic scientific literacy and critical thinking skills among students in the Independent Curriculum aspect show a positive picture. As many as 32% of respondents strongly agreed with the importance of basic scientific literacy and critical thinking skills, indicating that almost a third of respondents had a strong belief in this. The largest percentage, namely 54%, agreed, which means the majority of respondents support the importance of scientific literacy and critical thinking. As many as 10% of respondents considered it quite important, which shows that they have doubts or a neutral view of this statement. Meanwhile, only 2% of respondents disagreed and 1% strongly disagreed, indicating that only a small portion disagreed or perhaps did not see the relevance of scientific literacy and critical thinking skills in the Merdeka Curriculum.

These results illustrate strong support for the integration of scientific literacy and critical thinking skills in education. The high percentage of respondents who strongly agreed and agreed indicates that many believe scientific literacy and critical thinking skills are essential for effective and holistic learning. This significant support can encourage the development and implementation of teaching methods that focus more on increasing scientific literacy and critical thinking skills in schools, especially at SD Negeri 1 Landungsari. With the majority of respondents agreeing or strongly agreeing with the statement, these results provide positive encouragement for educators and policymakers to continue strengthening scientific literacy and critical thinking skills in the curriculum. They can also take steps to address existing doubts among respondents who selected “moderately,” as well as understand and address the concerns of the small minority who disagree or strongly disagree. This aims to ensure that all students can obtain maximum benefits from education based on scientific literacy and critical thinking in accordance with the spirit of the Independent Curriculum.

Basic Science Literacy Abilities of Grade IV Students' Characters Against the Independent Curriculum

Table 2 Results of Basic Scientific Literacy Abilities of Class IV Students' Characters Against the Independent Curriculum

Items	Statement	Strongly agree		Agree		Don't know		Don't agree		Strongly Disagree		Mean
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	
X2.1	Scientific literacy aims to increase critical thinking skills	3	10.0	21	70.0	3	10.0	1	3.3	2	6.7	3,73
X2.2	Examples of reading texts given by teachers during class lessons have been able to improve students' literacy skills	7	23.3	23	76.7	0	0	0	0	0	0	4,23

In explaining these results, aspects of basic scientific literacy abilities on the character of class IV students at SD Negeri 1 Landungsari, Malang Regency, in the context of the Independent Curriculum show varying results. Based on the statement that scientific literacy aims to increase critical thinking skills, 10.0% of respondents strongly agreed and 70.0% of respondents agreed, with a mean of 3.73. Only 10.0% of respondents did not know, 3.3% disagreed, and 6.7% strongly disagreed. This shows that the majority of respondents agree with the importance of scientific literacy in improving critical thinking skills, although there are some who are less sure or disagree.

Regarding the statement that the examples of reading texts given by the teacher during class learning were able to improve students' literacy skills, the results were more positive. As many as 23.3% of respondents strongly agreed and 76.7% of respondents agreed, with a mean of 4.23. There were no respondents who didn't know, disagreed, or strongly disagreed, indicating a consensus that the reading texts provided by teachers were effective in improving students' literacy skills.

The results of this research show that scientific literacy at SD Negeri 1 Landungsari has the main aim of developing students' critical thinking skills. Although some were less sure, the majority of respondents supported the goal of scientific literacy. Apart from that, the reading texts used in classroom learning are considered very effective in improving students' literacy skills, which means that the teaching methods applied are in accordance with students' needs in understanding scientific concepts and improving their literacy skills. Thus, this research underlines the importance of scientific literacy in the Independent Curriculum and the effectiveness of the teaching strategies implemented at SD Negeri 1 Landungsari.

In research conducted by Utama et al. (2023), the role and management of basic scientific literacy abilities and students' character in the Independent Curriculum can be understood through the following points:

1. The role of basic scientific literacy abilities
   Basic scientific literacy skills play an important role in improving students' understanding of scientific concepts, problem-solving abilities, and their interactions with the environment. This ability allows students to apply scientific knowledge in real-life situations, encouraging critical and analytical thinking skills.
2. The Role of Student Character
   Student character development is important in shaping student values, attitudes, and behavior. Through the Merdeka Curriculum, emphasis is placed on instilling positive character traits such as responsibility, integrity, respect, and resilience in students. These character traits are important so that students become individuals with good personalities and responsible citizens.
3. Integration with the Independent Curriculum

The Merdeka Curriculum emphasizes holistic education that goes beyond academic achievement to include character development and practical skills. By integrating Basic Scientific Literacy Skills and character development in Grade IV, students can gain not only scientific knowledge but also the ethical values and social skills necessary for personal growth and social contribution.

4. Management of Basic Scientific Literacy Abilities and Student Character
   Effective management of Basic Scientific Literacy Skills and student character development involves designing curriculum activities that integrate scientific concepts with moral values and character-building exercises. Teachers play an important role in facilitating discussions, activities, and assessments that promote scientific literacy and character development in students.
5. Assessment and Evaluation
   Regular assessment and evaluation of students' progress in Basic Science Literacy Skills and character development is important to monitor their progress and identify areas for improvement. Formative assessments, self-reflection exercises, and feedback mechanisms can help students track their progress and set goals for continuous improvement.

By aligning students' basic scientific literacy skills and character development with the principles of the Independent Curriculum, educators can create a comprehensive learning environment that fosters students' academic, ethical, and social growth. This integrated approach prepares students to become competent individuals with a strong foundation in science and mature character to face the challenges of the modern world.

In this case, the percentage of basic scientific literacy abilities and student character development is as follows:

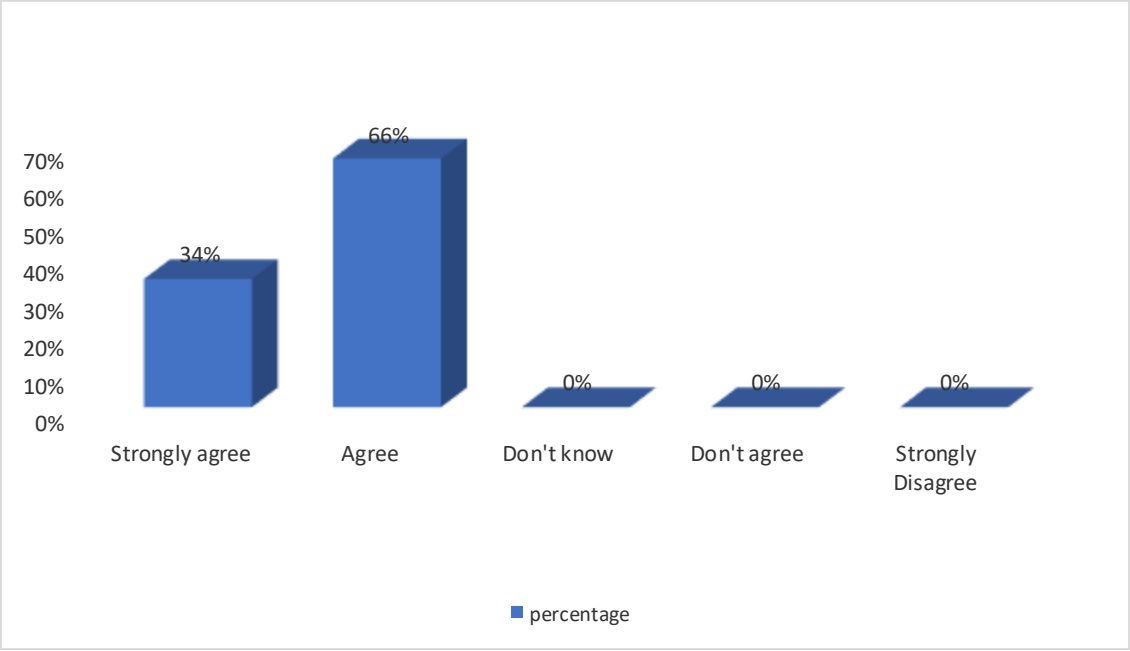

Figure 2 Results of Basic Science Literacy Abilities of Class IV Students' Characters Against the Independent Curriculum

In this research, aspects of basic scientific literacy abilities on the character of class IV students at SD Negeri 1 Landungsari, Malang Regency, in the context of the Independent Curriculum showed varying results. Based on the statement that scientific literacy aims to increase critical thinking skills, 10.0% of respondents

strongly agreed and 70.0% of respondents agreed, with a mean of 3.73. Only 10.0% of respondents did not know, 3.3% disagreed, and 6.7% strongly disagreed. This shows that the majority of respondents agree with the importance of scientific literacy in improving critical thinking skills, although there are some who are less sure or disagree. Regarding the statement that the examples of reading texts given by the teacher during class learning were able to improve students' literacy skills, the results were more positive. As many as 23.3% of respondents strongly agreed and 76.7% of respondents agreed, with a mean of 4.23. There were no respondents who didn't know, disagreed, or strongly disagreed, indicating a consensus that the reading texts provided by teachers were effective in improving students' literacy skills.

The results of this research show that scientific literacy at SD Negeri 1 Landungsari plays an important role in developing students' critical thinking skills. Although some were less sure, the majority of respondents supported the goal of scientific literacy. In addition, the reading texts used in classroom learning are considered very effective in improving students' literacy skills, which means that the teaching methods applied are in accordance with students' needs in understanding scientific concepts and improving their literacy skills. Thus, this research underlines the importance of scientific literacy in the Independent Curriculum and the effectiveness of the teaching strategies implemented at SD Negeri 1 Landungsari.

Basic Scientific Literacy Abilities of Class IV Students in the Independent Curriculum at SD Negeri 1 Landungsari, Malang Regency on Critical Thinking Abilities

Research conducted by Handayani (2021) explains that students' basic scientific literacy skills play a major role in improving critical thinking. One of the main ways is through understanding scientific literacy. By understanding scientific concepts in depth, students can analyze information better and identify valid and invalid arguments. A strong understanding of scientific literacy enables students to critically evaluate claims and evidence, which is the essence of critical thinking. So scientific literacy involves understanding the scientific method and the process of knowledge discovery. Students who have a good understanding of the scientific process will be more likely to use a systematic and logical approach in solving problems. Students can learn to formulate hypotheses, design experiments, collect and analyze data, and draw conclusions based on evidence. This process not only improves analytical skills but also trains them to think methodically and objectively.

From scientific literacy, which helps in developing critical thinking. The ability to relate science concepts to real-world situations provides students with the ability to evaluate information based on specific contexts. In this case, students can consider various factors that influence a phenomenon and make more informed and evidence-based decisions. This helps learners develop the ability to think holistically and consider multiple perspectives in their analysis. Basic scientific literacy skills provide a strong foundation for students to develop better critical thinking. Through a deep understanding of scientific concepts, scientific processes, and applications in real contexts, students can hone analytical, evaluative, and reflective skills that are important in critical thinking. Scientific literacy not only helps them in mastering subject matter but also in forming a more critical and effective way of thinking in facing challenges in the real world.

In this case, the results of the basic scientific literacy abilities of students in class IV of the Merdeka Curriculum at SD Negeri 1 Landungsari, Malang Regency, on critical thinking skills, explain the research results as follows:

Table 3 Basic Scientific Literacy Abilities of Class IV Independent Curriculum Students at SD Negeri 1 Landungsari Malang Regency on Critical Thinking Ability

Items	Statement	Strongly agree		Agree		Don't know		Don't agree		Strongly Disagree		Mean
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	
X3.1	The assignments given by teachers during classroom learning have been able to improve students' basic literacy skills	15	50.0	15	50.0	0	0	0	0	0	0	4,50
X3.2	The use of critical thinking skills instruments in the classroom is able to motivate students in learning	16	53.3	14	46.7	0	0	0	0	0	0	4,53

The results of research regarding the basic scientific literacy abilities of class IV students in the Independent Curriculum at SD Negeri 1 Landungsari, Malang Regency show a positive influence on critical thinking abilities. Based on the statement "The assignments given by teachers during classroom learning have been able to improve students' basic literacy skills," as many as 50% of respondents strongly agreed and the other 50% agreed, resulting in a mean score of 4.50. There were no respondents who chose not to know, disagree, or strongly disagree, indicating that all respondents saw the assignments given by teachers as an effective tool for improving students' basic literacy.

The results of the statement "the use of critical thinking skills instruments in the classroom is able to motivate students in learning" also received a very positive response. A total of 53.3% of respondents strongly agreed and 46.7% agreed, with a mean value of 4.53. Just like the previous statement, there were no respondents who chose not to know, disagree, or strongly disagree. This shows that the use of critical thinking instruments in the classroom not only improves students' critical abilities but also motivates them in the learning process. So the results of this research show that the learning methods applied at SD Negeri 1 Landungsari, including the assignments given and the use of critical thinking instruments, effectively improve basic scientific literacy skills and motivate students. This supports the implementation of the Independent Curriculum, which aims to develop students' critical thinking skills and independence.

In research conducted by Nurwidiyanti and Sari (2022), it was explained that in knowing the basic scientific literacy abilities of classroom students, there are several aspects that need to be considered, including:

1. Explaining Scientific Phenomena
   Students' ability to explain scientific phenomena using appropriate scientific language and concepts
2. Interpret Data and Evidence Scientifically

Students' ability to interpret data and evidence scientifically to make appropriate conclusions.

3. Evaluate and Design Scientific Questions
   Students' ability to evaluate scientific information obtained and design scientific questions to support further research processes
4. Learning Motivation
   The influence of learning motivation on students' scientific literacy abilities
5. Family parenting style
   The influence of family parenting on students' scientific literacy abilities
6. Learning Media

Use of appropriate and innovative learning media to improve students' scientific literacy skills

7. Cognitive Ability Development
   Mastery of scientific literacy skills in developing students' cognitive abilities
8. Use of Learning Methods
   The importance of using learning methods that encourage critical thinking rather than simply memorizing material.

In this case, the basic scientific literacy skills of students in class IV of the Independent Curriculum at SD Negeri 1 Landungsari, Malang Regency, the role of teaching staff is the main role in improving students' critical thinking abilities. Educators can encourage students to actively ask questions and discuss the science material being studied. In this way, students will be trained in critical thinking because they are invited to question, analyze, and conclude information logically. Educators can provide complex challenges or problems that require critical thinking from students. This will stimulate students' critical thinking skills in finding appropriate and logical solutions. By providing this challenge, students are invited to involve themselves deeply in the learning process and hone students' critical thinking skills.

Active learning methods also play an important role. Educators can use learning methods that encourage students to think actively, such as project-based learning, group discussions, or experiments. This method not only makes learning more interesting but also trains students in developing their critical thinking skills. In other things that support it, providing constructive feedback, teaching staff need to provide constructive feedback on students' thoughts and arguments. In this way, students can improve and develop their critical thinking skills gradually. Good feedback helps students understand the weaknesses and strengths of their thinking so they can learn from mistakes and strengthen students' critical thinking skills.

The integration of scientific literacy in learning for teaching staff aims to integrate scientific literacy in every aspect of learning so that students not only master scientific concepts but are also trained in critical thinking in a scientific context. With strong scientific literacy, students can understand, analyze, and evaluate scientific information better. With the proactive role of teaching staff in addressing the basic scientific literacy abilities of students in class I of the Independent Curriculum at SD Negeri 1 Landungsari, Malang Regency, it is hoped that students can develop their critical thinking skills optimally. This will help them understand, analyze, and evaluate scientific information better, which will ultimately improve the quality of learning and academic results of students.

The overall percentage results in this case can be explained as follows:

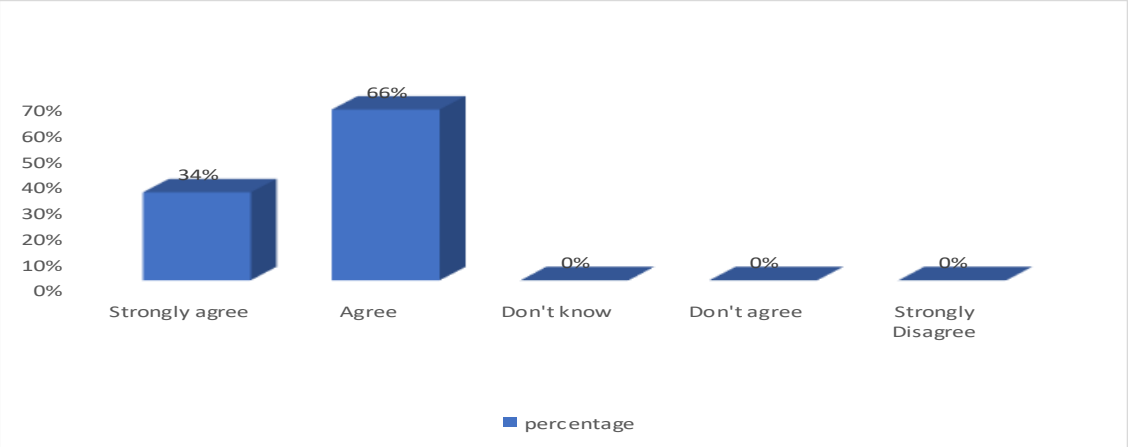

Figure 1 Basic Scientific Literacy Abilities of Class IV Independent Curriculum Students at SD Negeri 1 Landungsari Malang Regency on Critical Thinking Ability

The overall results regarding the basic scientific literacy abilities of class IV students in the Merdeka Curriculum at SD Negeri 1 Landungsari, Malang Regency show that 51.7% of students strongly agree and 48.3% agree that basic scientific literacy abilities play an important role in improving their critical thinking abilities. No students selected "don't know," "disagree," or "strongly disagree." These results show that the majority of students have a strong understanding and belief in the role of scientific literacy in developing their critical thinking skills. The figure of 51.7% who strongly agree reflects that more than half of the students feel a significant positive impact from scientific literacy on their critical thinking abilities. This shows that they not only understand scientific concepts well but are also able to apply them in critical analysis and problem solving.

On the other hand, 48.3% of students who agreed showed that almost all students recognized the importance of scientific literacy in honing critical thinking skills, although perhaps with a slightly lower level of confidence compared to the group who strongly agreed. The absence of respondents who chose "fairly," "disagree," or "strongly disagree" shows that all students have a positive perception of scientific literacy and its role in improving critical thinking skills. This can be caused by effective teaching methods and the relevance of the material taught, which makes students feel that scientific literacy is truly beneficial in the learning process for students.

So these results show that the learning approach implemented at SD Negeri 1 Landungsari is very successful in integrating scientific literacy with the development of critical thinking skills. Learning methods that encourage discussion, provide challenges, use active learning, provide constructive feedback, and integrate scientific literacy in every aspect of learning appear to be effective in building students' critical thinking skills. These results also provide positive encouragement for teaching staff to continue to use and develop these strategies in daily learning. Thus, basic scientific literacy skills not only help students understand scientific concepts but also develop critical thinking skills that are very necessary for academic success and everyday life.

Critical Thinking Ability of Class IV Students in the Independent Curriculum at SD Negeri 1 Landungsari Malang Regency on Character

Table 4: Critical Thinking Ability of Class I Independent Curriculum Students at SD Negeri 1 Landungsari Malang Regency on Character

Items	Statement	Strongly agree		Agree		Don't know		Don't agree		Strongly Disagree		Mean
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	
X4.1	The use of this instrument is able to motivate students in learning basic scientific literacy	14	46.7	16	53.3	0	0	0	0	0	0	4,47
X4.2	Gratitude to God for having a family who loves him	24	80.0	6	20.0	0	0	0	0	0	0	4,80

The critical thinking skills of class IV students in the Merdeka Curriculum at SD Negeri 1 Landungsari, Malang Regency aim to shape character, providing the following research results: in the aspect of using instruments, critical thinking skills in basic scientific literacy learning have shown significant results. The statement "Using this instrument is able to motivate students in learning basic scientific literacy" received

a very positive response, with 46.7% of respondents strongly agreeing and 53.3% agreeing, resulting in a mean of 4.47. No respondents selected "don't know," "disagree," or "strongly disagree," confirming that all students felt the benefits of using the instrument in increasing their motivation and engagement in learning.

The statement "gratitude to God for having a family who loves him" also showed very positive results, with 80.0% of respondents strongly agreeing and 20.0% agreeing, resulting in a mean of 4.80. These results indicate that the majority of students feel grateful and supported by their families, which is an important aspect in character formation and emotional well-being of students.

These results show that the instruments used in basic scientific literacy learning are not only effective in improving critical thinking skills but also in motivating students. High motivation is an important factor in academic success because motivated students tend to be more involved and enthusiastic in the learning process. The use of appropriate instruments helps students develop critical thinking skills that are essential in understanding and analyzing scientific information. In other cases, gratitude to God and support from family show that students have a strong emotional foundation, which is very important in shaping their character. Gratitude and family support not only provide a sense of security and comfort for students but also encourage them to achieve better in academics and everyday life. So the critical thinking skills and character of students in class IV of the Independent Curriculum at SD Negeri 1 Landungsari, Malang Regency are interrelated and support each other. Effective learning instruments increase motivation and critical thinking skills, while emotional support from family and gratitude strengthen students' character and well-being. This combination creates a holistic learning environment and supports overall student development.

In research conducted by Rosyid (2021), it is explained that in forming character in students through critical thinking skills, there are several aspects that need to be considered, several aspects that are important in developing critical thinking skills to shape character in students, as follows:

1. Information Analysis
   Students need to be able to collect information from various sources, evaluate the truth and relevance of the information, and formulate logical thoughts based on the information obtained.
2. Evaluate Arguments
3. The ability to evaluate arguments from different points of view, identify weaknesses and strengths of arguments, and conclude objectively is an important aspect of critical thinking.
4. Problem Solving
   Students need to be trained to identify problems, formulate alternative solutions, evaluate the consequences of each proposed solution, and choose the most appropriate solution based on careful consideration.
5. Ethical Considerations
   In making decisions, students need to consider applicable ethical and moral values. The ability to understand the impact of every action taken on oneself and others is an important aspect of critical thinking.
6. Self-Reflectio
   Students need to be invited to regularly reflect on themselves, evaluate the decisions and actions they have taken, and learn from experience to improve students' critical thinking skills and character.

From these results, the overall assessment results can be explained as follows:

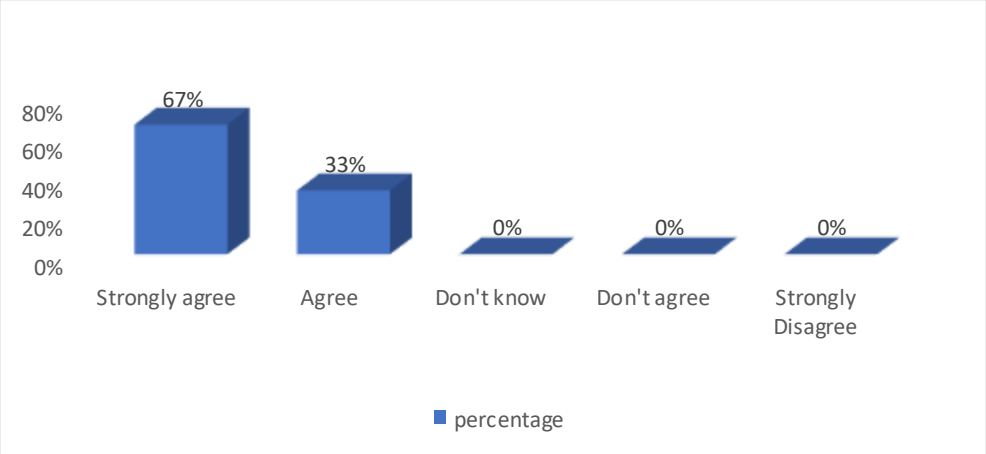

Figure 4 Critical Thinking Ability of Class IV Students in the Independent Curriculum at SD Negeri 1 Landungsari Malang Regency on Character

The results of the research show that in terms of the critical thinking skills of students in class IV of the Merdeka Curriculum at SD Negeri 1 Landungsari, Malang Regency, the majority of respondents, namely 67%, strongly agreed that critical thinking skills play an important role in shaping their character. Another 33% of respondents also agreed with this statement. No one answered "quite," "disagree," or "strongly disagree," which shows that the majority of students have a strong and positive understanding of the relationship between critical thinking skills and the formation of their character. These results illustrate that students recognize the importance of critical thinking skills in helping them understand, analyze, and evaluate information in a more critical and rational way. So these results show that the ability to think critically is a skill that is very necessary in modern education, where students are not only expected to master knowledge but also to be able to apply and analyze information critically. By having good critical thinking skills, students can develop an independent, analytical character and be able to make better decisions in everyday life. The importance of critical thinking skills in forming character is also reflected in students' ability to assess the values, norms, and behaviors they encounter. Thus, developing critical thinking skills not only supports academic achievement but also helps in forming positive attitudes and values in students, which have a positive impact on students' personal and social lives.

Character Abilities of Class IV Independent Curriculum Students at SD Negeri 1 Landungsari, Malang Regency

According to Sugiarto et al. (2022), explaining that character abilities that include independence will help students develop critical thinking. By becoming independent, students will be braver to ask questions, seek information, and evaluate arguments objectively. Independence can give students more openness to different points of view and not be afraid to question things that are uncertain. Another aspect that can influence critical thinking in students is that discipline is an important aspect of character in critical thinking. Students who have good discipline tend to be more organized in their thinking processes, follow the analysis steps systematically, and are not in a hurry to make decisions. Discipline also helps students to remain focused and consistent in evaluating the information and arguments obtained.

The character's ability to persevere in facing challenges and difficulties can be aimed at critical thinking. Students who have perseverance will be more persistent in finding solutions to complex problems, will

not give up easily when facing obstacles, and will continue to try to improve their critical thinking skills. Diligence also helps students to develop deeper analytical skills. The role of integrity is a character that reflects honesty, truthfulness, and consistency in thinking and acting. Students who have high integrity tend to be more objective in evaluating arguments, are not influenced by personal or external bias, and are able to draw fair conclusions based on existing facts and evidence. Integrity also helps students to avoid tendentious thinking and maintain truth in the critical thinking process.

Table 5: Character Abilities of Class IV Independent Curriculum Students at SD Negeri 1 Landungsari, Malang Regency

Items	Statement	Strongly agree		Agree		Don't know		Don't agree		Strongly Disagree		Mean
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	
X5.1	I feel bored listening to anything related to religion	0	0	0	0	0	0	12	40.0	18	60.0	1,40
X5.2	I accept all friends in the school environment without discriminating against their religion	13	43.3	17	56.7	0	0	0	0	0	0	4,43
X5.3	I do not accept any opinions from friends of different religions either during discussions or during breaks	0	0	0	0	0	0	15	50.0	15	50.0	1,50

As a result of the character abilities of students in class IV of the Merdeka Curriculum at SD Negeri 1 Landungsari, Malang Regency, the research results show several relevant aspects related to attitudes towards religion and interfaith tolerance. Statements that highlight attitudes towards religion such as "I feel bored listening to things related to religion" show that no respondents stated that they strongly agree or agree, but the majority, namely 60.0%, stated that they strongly disagree, with a mean of 1.40. This indicates that students at SD Negeri 1 Landungsari tend not to feel bored or reject topics related to religion, although a small number may feel uninterested.

Other statements, such as "I accept all friends in the school environment without discriminating against their religion," received positive responses, with 43.3% of respondents strongly agreeing and 56.7% agreeing, and a mean of 4.43. This shows that the majority of students at this school have an inclusive attitude and accept their friends regardless of religious differences, which reflects the values of tolerance and diversity that are highly upheld. However, there are also statements that show the potential to increase tolerance and respect for religious differences, such as "I do not accept any opinions from friends of different religions either during discussions or during breaks." In this statement, 50.0% of respondents said they did not know and 50.0% said they strongly disagreed, with a mean of 1.50. These results suggest that there is room for further learning about respecting and supporting the perspectives and opinions of friends who have different religious beliefs.

So the results of this research underline the importance of inclusive and supportive character education in forming attitudes of tolerance and respect for religious diversity among students. By strengthening values such as acceptance, inclusivity, and respect for religious differences, schools can play

an active role in forming a generation that better understands and respects diversity in society.

In research conducted by Ardila et al. (2017), it is explained that improving students' character abilities, especially in terms of critical thinking, can include several steps, with the following explanation

1. Character Education
   Implement character education consistently in the school curriculum and activities. Through learning that prioritizes values such as integrity, independence, discipline, and perseverance, students will be trained to apply these values in critical thinking.
2. Project-Based Learning
   Use a project-based learning approach that encourages students to collaborate, think critically, and solve problems independently. These projects can be designed to strengthen students' character abilities while improving their critical thinking skills.
3. Authentic Assessment
   Using authentic assessment methods that allow students to demonstrate their critical thinking skills in real life through assignments or projects that are relevant to real life. This assessment can also help identify areas that need to be improved in students' character and critical thinking abilities.
4. Critical Thinking Habits
   Train students to get used to critical thinking by asking in-depth questions, evaluating information critically, and drawing conclusions based on strong evidence. Support students to continue to develop analytical and evaluation skills in every learning activity
5. Social Skills Development
6. Apart from critical thinking skills, social skills such as collaboration, effective communication, and leadership are also important in strengthening students' character. Provide opportunities for students to interact with others, work in teams, and resolve conflicts constructively.
7. Contextual Approach
   Educators can provide learning material in a context that is relevant to students' daily lives. By understanding the relationship between the concepts studied and real situations, students will be more motivated to think critically and relate knowledge to their experiences
8. Multidisciplinary Approach
   By involving various scientific disciplines and diverse learning approaches to develop students' critical thinking from various points of view. By broadening students' horizons and knowledge, they will be trained to face the complexities of the world better.

Overall assessment in this aspect, with percentage explanation as follows:

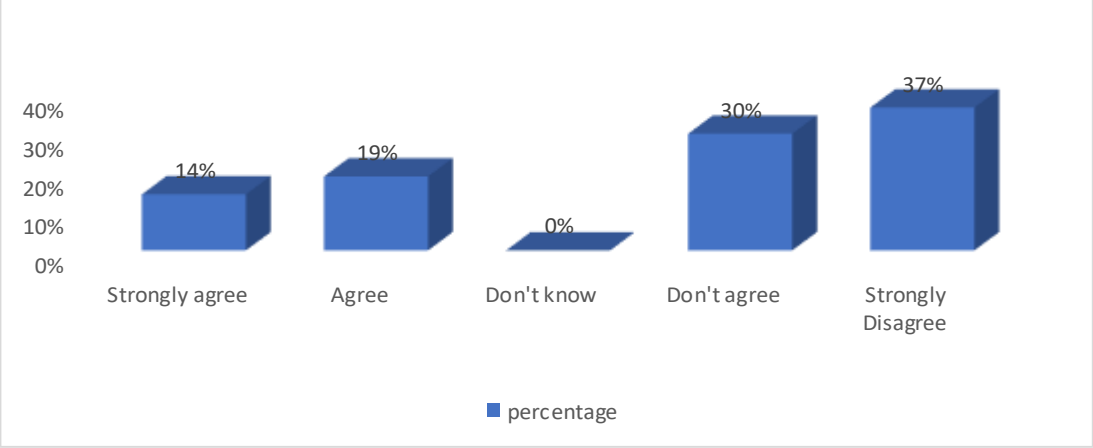

Figure 5 Character Ability Results of Class IV Independent Curriculum Students at SD Negeri 1 Landungsari, Malang Regency

These results show that there is a significant variation in responses to statements related to attitudes towards religion and interfaith tolerance: strongly agree (14.4%) and agree (18.9%). A small percentage of students indicated agree or strongly agree with the statement on certain issues that may relate to attitudes towards religion or sensitive topics. Disagree (30.0%) and Strongly Disagree (36.7%); in this case, the majority of students showed strong disagreement or rejection of the statement, which could reflect different attitudes towards religious issues or a tendency not to fully accept a certain view.

So a statement such as "I feel bored listening to something related to religion" shows that the majority of students strongly disagree with this statement, with only a few having a positive response. This shows that students tend to be open to religious topics and do not feel bored with these discussions. On the other hand, the statement about acceptance of friends regardless of religious differences received a significant positive response, with the majority of students showing an inclusive and accepting attitude towards their friends with different religious beliefs. This reflects the values of tolerance and diversity that are important to promote in an educational environment. However, statements indicating a lack of openness to the opinions of friends of different religions indicate that there is room for improvement in increasing understanding and respect for differences in religious beliefs among students.

So this research highlights the importance of character education that supports the values of inclusiveness, tolerance, and respect for religious diversity among students. By strengthening understanding and positive attitudes towards religious differences, schools can play an important role in forming a generation that is more respectful and understanding of diversity in society.

Basic Science Literacy Capabilities of Class IV Students at SD Negeri 1 Landungsari, Malang Regency in the Independent Curriculum to Know Students' Critical Thinking Abilities

Table 6: Basic Scientific Literacy Abilities of Class IV Students at SD Negeri 1 Landungsari, Malang Regency in the Independent Curriculum in order to determine students' critical thinking abilities

Items	Statement	Strongly agree		Agree		Don't know		Don't agree		Strongly Disagree		Mean
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	
X6.1	I enjoy singing the song Indonesia Raya and I feel proud	24	80.0	6	20.0	0	0	0	0	0	0	4,80
X6.2	I organize my play and study time to be more effective	21	70.0	9	30.0	0	0	0	0	0	0	4,70
X6.3	When there is difficult subject matter, I don't hesitate to ask the teacher	12	40.0	14	46.7	4	13.3	0	0	0	0	4,27

The results of the statement "I enjoy singing the song Indonesia Raya, and I feel proud" show that 80.0% of students stated that they strongly agreed and 20.0% agreed with this statement, with a mean of 4.80. These results reflect a positive attitude and sense of pride towards national symbols, which can also reflect a strong sense of national identity among students. In terms of another question, "I manage my playing and studying time to be more effective," as many as 70.0% of students stated that they strongly agreed and 30.0% agreed with this statement, with a mean of 4.70. These results indicate that the majority of students have developed effective time management skills, which is an important aspect in the formation of independent learning and

problem-solving abilities. In the statement "When there is difficult subject matter, I do not hesitate to ask the teacher," this statement received a response with 40.0% strongly agreeing, 46.7% agreeing, and 13.3% not knowing, with a mean of 4.27. These results indicate that the majority of students have a proactive attitude in resolving learning difficulties by asking the teacher, which is a positive indication of their ability to overcome academic challenges.

So the results of this research show that students at SD Negeri 1 Landungsari who follow the Independent Curriculum show good progress in their critical thinking skills. A positive attitude towards national symbols, effective time management skills, and a proactive attitude in learning show that the student-centered Merdeka Curriculum approach is effective in developing their scientific literacy and critical thinking abilities. This provides a strong foundation for further development in supporting students' academic and personal potential in the future.

In research conducted by Syafe'i (2017), it was explained that the Independent Curriculum provides a strategic role for teaching staff in developing students' scientific literacy and critical thinking abilities, with several main controls that need to be considered as follows:

1. Creating Student-Centered Learning
   A student-centered learning approach is the main key in the Independent Curriculum. Models such as project-based learning, problem-based learning, and cooperative learning provide opportunities for students to be actively involved in the learning process. By facilitating independent exploration and discovery of science concepts, students can better develop their critical thinking skills. Scientific discussions and arguments in class also provide a platform for students to test their understanding and sharpen their arguments. Constructive and continuous feedback from teachers helps students improve their understanding and develop critical thinking skills continuously.
2. Utilize various learning sources
   The use of various authentic and relevant learning sources such as scientific texts, science news articles, science educational videos, and statistical data is important in enriching students' learning experiences. Information and communication technologies (ICT), such as computer simulations and online learning platforms, allow students deeper and more interactive exploration of science concepts. Learning environments rich in science information, such as classroom science corners or science laboratories, also provide practical experiences that support the development of students' scientific literacy.
3. Integrate science literacy in Various Subjects
   The integration of scientific literacy with other subjects such as Indonesian, mathematics, and social sciences helps students understand the relevance of scientific concepts in everyday life and broader contexts. Learning projects that integrate various subjects not only improve students' understanding of science but also hone their ability to apply multidisciplinary knowledge
4. Develop students' critical thinking abilities
   Developing critical thinking skills through scientific literacy is carried out by training students to analyze information critically, identify bias and hidden agendas in information, and question their own assumptions and prejudices. Through this learning, students not only gain scientific knowledge but also develop evaluative and reflective skills that are important in critical thinking
5. Collaborate with Parents and Community
   Involving parents in the science learning process by holding workshops or

seminars on scientific literacy helps expand support and understanding of students' science education at home. Collaboration with local communities, such as visiting science museums or holding nature observation activities, also provides a real context that enriches students' learning experiences. Collaboration with other science teachers to share ideas and best practices strengthens teacher professional development in supporting effective science learning.

So the overall assessment in this aspect is as follows:

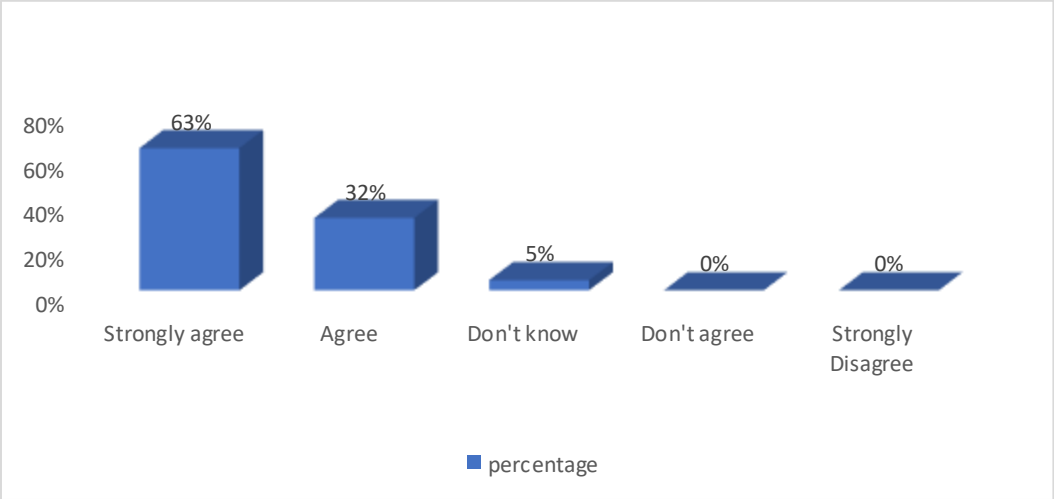

Figure 6 Basic Scientific Literacy Abilities of Grade IV Students at SD Negeri 1 Landungsari, Malang Regency in the Independent Curriculum to Know Students' Critical Thinking Ability

In the results of research regarding the Basic Science Literacy Capabilities of Class IV Students at SD Negeri 1 Landungsari, Malang Regency using the Independent Curriculum, the data shows the distribution of responses to aspects of critical thinking skills as follows: 63.33% of respondents said they strongly agreed, 32.22% agreed, and 4.44% is sufficient. No one stated that they disagreed or strongly disagreed with the statements submitted. These results illustrate that the majority of students show a positive response to aspects that assess critical thinking skills in the scientific literacy aspect.

In this case, the importance of education that focuses on developing critical thinking skills in the Independent Curriculum is evident from the positive responses of students. With a high percentage who strongly agree, this shows that the learning approach applied, such as using various learning sources and utilizing active learning models, is effective in stimulating students to think critically about the scientific information they receive. These results also reflect that the integration of scientific literacy with other subjects as well as collaboration between schools, parents and local communities play an important role in developing students' critical thinking skills holistically. Thus, an increase in critical thinking skills can be an indicator of the success of implementing the Independent Curriculum in preparing students to become individuals who are able to face the increasingly complex challenges of the modern world.

Basic Science Literacy Capabilities of Class IV Students at SD Negeri 1 Landungsari, Malang Regency in the Independent Curriculum to Know Character

Table 7 Results of Basic Scientific Literacy Abilities of Class IV Students at SD Negeri 1 Landungsari, Malang Regency in the Independent Curriculum to Know Character

Items	Statement	Strongly agree		Agree		Don't know		Don't agree		Strongly Disagree		Mean
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	
X7.1	Carrying out various activities at school by working together well and helping each other	14	46.7	11	36.7	4	13.3	1	3.3	0	0	4,27
X7.2	Respect friends of different ethnicities, races and religions	24	80.0	6	20.0	0	0	0	0	0	0	4,80
X7.3	Reprimand friends for cheating on each other during exams	15	50.0	15	50.0	0	0	0	0	0	0	4,50
X7.4	I studied without waiting for my parents' orders	2	6.7	13	43.3	8	26.7	7	23.3	0	0	3,33

The results of the research show the attitudes and behavior of class IV students at SD Negeri 1 Landungsari, Malang Regency, in the context of the Independent Curriculum, especially in basic scientific literacy skills and critical thinking skills. First, in statement This shows that the majority of students have a positive attitude towards cooperation and helping each other in school activities, although there are a few who do not know or disagree. Second, in statement These results show that almost all students have an attitude of respect for ethnic, racial, and religious differences, reflecting strong values of inclusivity and tolerance among students. in statement This shows that all students agree with the action of reprimanding friends who cheat, showing a good attitude of honesty and integrity in the school environment, in statement X7.4. "I study without waiting for my parents' orders," as many as 6.7% of students strongly agree and 43.3% agree, yielding a mean of 3.33. However, 26.7% of students do not know and 23.3% disagree. These results show that there is quite significant variation in learning independence among students, with the majority still requiring encouragement from parents to learn. So the results of this research show that class IV students at SD Negeri 1 Landungsari Malang Regency have a positive attitude towards cooperation, tolerance, and honesty in the school context. However, there is room to increase students' learning independence so that they can be more proactive in learning without having to always wait for orders from their parents.

Based on Fuadi et al. (2020), explain the basic abilities of scientific literacy in students, opening the gates to an intelligent and characterful future. In an era of globalization full of information and technological advances, scientific literacy skills are the key for students to develop into individuals who are intelligent, critical, and able to solve problems. Scientific literacy is not just about memorizing scientific facts and concepts but also about the ability to understand, process, and use scientific information to make rational and responsible decisions. Scientific literacy helps students develop essential critical thinking skills in assessing the validity of information, identifying bias, and understanding the implications of various scientific phenomena.

Through scientific literacy, students are invited to be active in the learning process, explore scientific concepts, and apply their knowledge in real contexts. Project- and problem-based learning, which is frequently used in the Merdeka Curriculum, provides space for students to work collaboratively and develop effective communication skills. This not only increases their understanding of science but also builds characters that value cooperation, responsibility, and curiosity.

This research at SD Negeri 1 Landungsari shows that students have a positive attitude towards cooperation and helping each other in school activities, with the majority of respondents stating that they strongly agree or agree with this statement. Attitudes of respect for ethnic, racial, and religious differences are also very prominent, reflecting an inclusive and tolerant learning environment. Apart from that, attitudes of honesty and integrity can be seen from the responses of students who reprimand friends who cheat on exams. However, the aspect of independent learning still needs to be improved, considering that there are significant variations in the level of independence of students in learning without parental direction. So in this case, scientific literacy not only equips students with scientific knowledge but also shapes them into individuals with character and ready to face future challenges. With strong scientific literacy, students can make better decisions, contribute positively to society, and become responsible citizens. The Merdeka Curriculum plays an important role in achieving this goal with a learner-centered approach and contextual learning, ensuring every student has the opportunity to develop optimally in cognitive and character aspects.

The basic scientific literacy abilities of students include several important aspects, namely:

1. Reading and Understanding Science Information
   Students must be able to read and understand science texts from various sources, such as scientific articles, research reports, and science news. They must be able to identify main ideas, key concepts, and supporting evidence in scientific literacy
2. Search for and determine answers to science questions
   Students must be able to formulate clear and focused science questions. They must be able to search for information from various credible sources to answer science questions. They must also be able to evaluate the information obtained to ensure its accuracy and relevance.
3. Explaining and Predicting Scientific Phenomena
   Students must be able to explain scientific phenomena using relevant scientific concepts and principles. They must be able to predict the results of scientific experiments or investigations based on their scientific knowledge. They must also be able to communicate scientific ideas orally and in writing clearly and effectively.
4. Identify and solve science problems
   Students must be able to identify scientific problems that exist in the surrounding environment. They must be able to develop creative solutions to scientific problems. They must conduct science experiments or investigations to test proposed solutions. They must also be able to evaluate the results of experiments or scientific investigations to draw conclusions.
5. Preparing Students for the Future
   In an increasingly complex era of globalization, scientific literacy skills are important for students to be able to compete and adapt to change.

Developing scientific literacy skills in students has very significant benefits in various aspects of life, scientific literacy can improve critical and analytical thinking skills, allowing students to understand and evaluate information objectively, which is very important in the current information era, scientific literacy encourages a sense of curiosity and creativity, helping students to ask relevant questions and seek innovative solutions to the problems they face. With a good understanding of scientific concepts and principles, students are better prepared to face technological and environmental challenges, and are able to make evidence-based decisions in everyday life. In other cases, scientific literacy can contribute to character formation, such as honesty, responsibility and cooperation, through experimental activities and projects that

require integrity and collaboration. So scientific literacy not only equips students with scientific knowledge, but also prepares them to become critical, creative and characterful citizens, who are ready to contribute positively to society and the surrounding environment.

So the overall assessment includes the following:

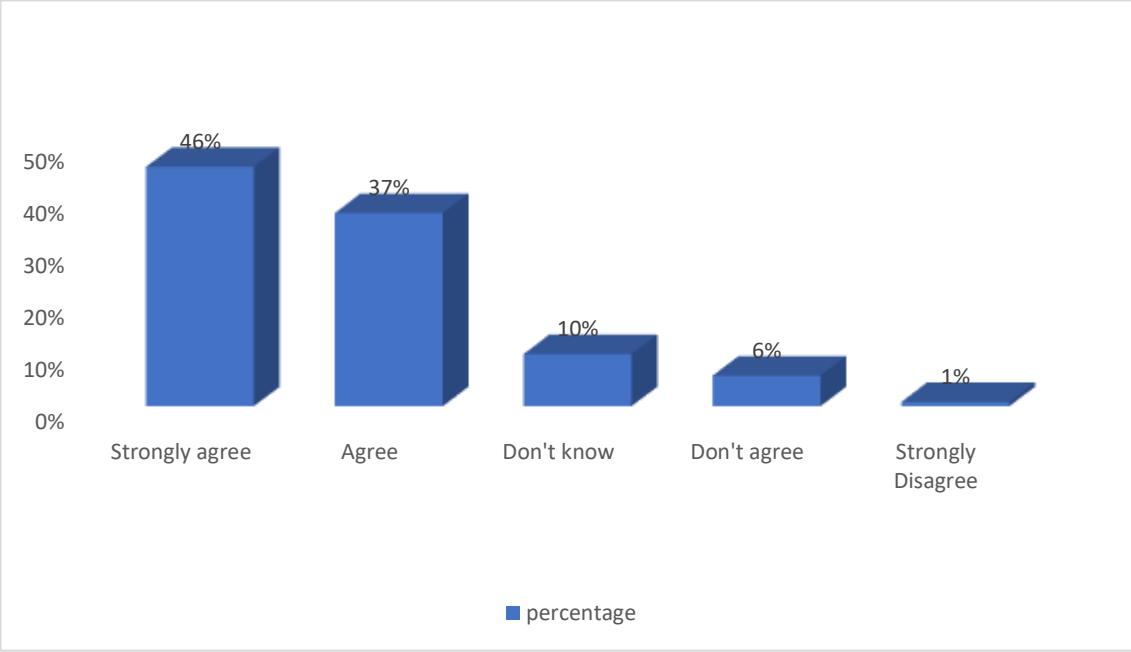

Figure 7 Results of Basic Scientific Literacy Capabilities of Class IV Students at SD Negeri 1 Landungsari, Malang Regency in the Independent Curriculum to Know Character

The results of the data showing the percentage of students' responses to a statement in the Independent Curriculum at SD Negeri 1 Landungsari illustrate students' attitudes and behavior towards scientific literacy and critical thinking skills. In this data, as many as 45.83% of students stated "strongly agree," 37.50% stated "agree," 10.00% stated "enough," 5.83% stated "disagree," and 0.83% stated "strongly disagree." The explanation of these results shows that the majority of students have a very positive attitude towards the statements given. Almost half of the students strongly agreed, showing high enthusiasm and acceptance. Coupled with the 37.50% who agreed, a total of 83.33% of students showed a positive attitude. This is a strong indication that the majority of students support or accept the statement favorably.

However, 10.00% of students who stated "enough" shows that there is a small number of students who feel neutral or do not have a strong opinion about this statement. This could mean that they may need more explanation or experience to fully understand and support the statement. Furthermore, the 5.83% of students who disagreed and the 0.83% who strongly disagreed indicated the existence of a small minority who may have had different experiences or views that led them not to support the statement. This is important to note because their views can provide valuable insight into specific aspects of the curriculum statement or implementation that may require improvement or adjustment.

So these data suggest that although the vast majority of students have positive attitudes, there is variation in levels of agreement, indicating the need for a more inclusive and in-depth approach to the development of scientific literacy and critical thinking skills. By understanding and addressing these diverse views, schools can be more effective in creating learning environments that

support and strengthen students' critical thinking and scientific literacy skills.

CONCLUSION

The influence of basic scientific literacy skills on critical thinking skills in class IV students at SD Negeri 1 Landungsari, Malang Regency, in the context of the Independent Curriculum provides several important conclusions. The majority of students show a positive attitude towards scientific literacy, with a high percentage showing levels of agreement and strongly agree with statements related to science activities and collaboration at school. This shows that students tend to have high interest and involvement in learning, which is an important foundation for developing critical thinking skills. In other aspects, the research results show that students have a high level of tolerance and inclusiveness, especially in respecting ethnic, racial, and religious differences. This positive attitude reflects values that support a learning environment that is conducive to the development of scientific literacy and critical thinking, where students feel safe to experiment and discuss openly.

The results of research on integrity show that students have good integrity, as can be seen from the high percentage who agree with reprimanding friends who cheat. This attitude is important in the context of scientific literacy, where honesty and reliability in the process of data collection and analysis are key to valid scientific understanding. However, there are variations in students' learning independence, with some still requiring encouragement from parents. This suggests that although their basic scientific literacy skills are strong, there is room for improvement in developing independent learning abilities and personal initiative, which are important aspects of critical thinking skills.

Overall, this research indicates that basic scientific literacy skills have a positive influence on students' critical thinking abilities. With a learning environment that is supportive, inclusive, and emphasizes the values of integrity and cooperation, students at SD Negeri 1 Landungsari can develop these two abilities more effectively. Proper implementation of the Merdeka Curriculum can further strengthen this relationship, helping students become intelligent, critical individuals and ready to face future challenges.

Declaration by Authors

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