PRIMARYEDU

Primaryedu: Journal of Elementary Education
Volume 9, Number 2, September 2025

P-ISSN: 2580-9326 | E-ISSN: 2580-7714

Reading Mapping and Sharing (RMS) Model: Improving Critical Thinking Skills of Elementary School Students on Cultural Diversity Material

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Article Info

Article history:

Received Juni 10th, 2025
Revised July 27th, 2025
Accepted August 22nd, 2025

Keywords:

21St-Century Skills
Reading
Mapping
Sharing
Critical Thinking Skills

Abstract

The main problem in this study is the low critical thinking skills of students and the learning strategies applied by teachers are still ineffective in learning. The purpose to be achieved in this study is to analyse the Reading, Mapping and Sharing learning model on the critical thinking skills of students in elementary schools. The focus of this research is: Effective learning syntax using the Reading, Mapping and Sharing learning model, and the effect of the Reading, Mapping and Sharing Model on students' critical thinking skills in elementary schools. The method used in this research is experimental method with one group pre test post test. This research was conducted in one of elementary school in Jakarta, with the object of research being class 4 as many as 28 students. Data collection instruments included the syntax of the application of the Reading Mapping and Sharing model, observation sheets of students' critical thinking skills. Data were analysed quantitatively. The results of this study are the stages of learning activities of the Reading Mapping Sharing model in the learning process and the results of students' critical thinking skills in elementary schools.

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INTRODUCTION

Education is a process that a person goes through consciously to develop potential in terms of knowledge, attitudes, skills, personality, spirituality so as to be competitive and provide benefits in life (Reza et al., 2024). In addition, education is a pillar for a nation in building quality human resources. Through education, everyone has the opportunity to develop their potential to the fullest. In line with that, the National Goals of the Indonesian nation are clearly outlined in the preamble of the 1945 Constitution, namely protecting the entire Indonesian nation and all Indonesian blood spilled, advancing general welfare, educating the nation's life, implementing world order, which is based on independence, eternal peace and social justice.

Knowledge should be built through an active learning process of learners in order to acquire their knowledge (Perez et al., 2023; Yanuarto & Hapsari, 2022). Knowledge that is built on the basis of the willingness and active participation of learners through various activities will be more meaningful in the minds of learners. Some of the problems that occur in the learning process include the low ability of students to analyse information characterized by an inability to distinguish between fact and opinion, conclude material, questioning skills, problem solving skills and critical thinking skills. The expression critical thinking refers to cognitive skills or techniques performed by a person to achieve the desired results (O'Reilly et al., 2022). In line with the above opinion, according to Robert Ennis, critical thinking ability can be defined as a person's ability to analyse, evaluate, and conclude information or arguments objectively and rationally (Dwyer et al., 2014). This ability is very important to train students in solving problems that occur in the surrounding environment. Critical thinking as an active thinking process based on reasons. Critical thinking skills are not limited to the ability to deduce material, but also the ability to assess statements. Critical thinking is not only about explaining human thought, critical thinking also involves a learning process, the power of thought, and a sceptical attitude (Hidayah et al., 2017). When someone has good critical thinking, they have the ability to think logically and can consider other people's points of view in the learning process. Thus, it is expected that every individual equips themselves with critical thinking skills, a willingness to learn and a thirst for knowledge that makes them useful in social life. In the learning environment, critical thinking skills need to be trained by each individual to achieve learning objectives. This is needed to sharpen knowledge so that it can create a healthy competitive environment in social interactions in the learning environment.

Critical thinking skills are one of the abilities that can be used to solve relevant problems in the surrounding environment. The essence of critical thinking is the ability to interpret, analyse, draw conclusions, evaluate, explain, and self-regulate (Bailin et al., 1999) . In learning IPAS, we often encounter things that require students' critical thinking to identify, understand concepts, draw conclusions in a problem. The nature of Social Science learning is the understanding and application of concepts, principles, and methods from various social science disciplines to analyse and understand social events and phenomena. Current curriculum requirements emphasize the development of 21st century competencies such as critical thinking, collaboration, and problem solving in a way that students learn to understand the social environment through various interactions based on prevailing values and norms. Social Studies focuses not only on factual understanding of the facts of history, geography, or economics, but also on the development of critical thinking, analytical skills, and reflective thinking ability of learners. Specifically, Social Studies aims to develop learners' understanding of the relationship between individuals, society, and the environment, so that they can become active, skilled, and critical-thinking citizens (Li, 2023). However, learners often cannot bring out their critical thinking in various matters in the learning process. This condition is caused by several factors including the use of conventional learning methods where learning is still teacher-centred, lack of opportunities for students to express their opinions in public, and the focus of learning is more on memorisation, not understanding (Fajari, 2021). Therefore, educators have a very important role to build and develop students' critical thinking skills in the learning process.

Critical thinking is one of the most important skills in 21st century learning. The National Education Association has identified 21st century skills as 'The 4Cs.' "The 4Cs include critical thinking, creativity, communication, and collaboration (Thornhill-Miller et al., 2023). Critical thinking skills are skills to perform various analyses, assessments, evaluations, reconstructions, decision-making that lead to rational and logical action (Indrašienė et al., 2023). At the elementary school level, the learning process is not only about memorising learning materials, but about how to train students' abilities in the ability to ask questions related to things that are problems around them, identify, process and analyse information and find solutions to various problems that are relevant to the level of development and learning objectives of students

The purpose of critical thinking is to understand information deeply, connect concepts and develop new knowledge. Critical thinking skills are needed by every individual to be able to achieve maximum potential so that it is useful in daily life so that it can lead a person to achieve success in global competition (Orhan, 2022). Therefore, someone who always exercises their critical thinking skills is able to analyse information better, find the root of the problem more quickly, and provide solutions to every challenge they face.

Teachers are expected to be familiar with diverse educational techniques and suitable ways to employ information and communication technology in encouraging the development of their students' 21st century skill (Malabanan et al., 2022). Based on these observations, a solution is needed to overcome problems related to the low critical thinking skills of students. Learning strategies, models, methods and media are one unit and function as guidelines for educators to facilitate students in achieving learning objectives. John Dewey suggests that the learning model has 5 main elements, namely, 1) Syntax, 2) Learning environment, 3) principles in learning activities, 4) support system, namely all forms of facilities that support the learning process 5) learning outcomes (Nisa et al., 2023). Based on the explanation above, it can be said that there is a gap between ideal conditions, expectations and reality in the field. Educators feel the need to develop innovative models to be an alternative solution to the above problems, so that students can develop their potential to the fullest in order to achieve learning objectives. To support the achievement of these learning objectives, educators need to design learning models that are not only innovative, but also able to hone students' critical thinking skills. By integrating approaches that stimulate the analysis, evaluation and synthesis of information, this model can be an effective bridge to overcome learning challenges while facilitating the holistic development of learners' potential, especially critical thinking skills (Worachak et al., 2023).

Thinking is a cognitive process or mental activity to gain knowledge (Azim & Nargiza, 2024). Critical thinking is the ability a person has to understand a problem deeply, and find a solution to a problem (Mulnix, 2012). Someone who has the ability to think critically is able to make the right decision so that it is effective in finding a solution to a problem. Experts interpret critical thinking as an intrinsic drive through understanding, analysis, evaluation, explaining based on evidence, concepts and contextual considerations (Facione, 2013). Paul and Elder say that a person can be called a critical thinker if he can do the following things: ask essential questions about the problem, collect and assess relevant information, make conclusions and solutions with appropriate reasoning, think openly, and communicate their thoughts effectively (Abrami et al., 2015). Critical thinking skills are a person's ability to reason to integrate their knowledge in order to analyse facts, create and defend ideas, make a comparison, and draw conclusions to solve

problems (Dwiastuti et al., 2021; Rachid & Sakale, n.d.; Rahmawan & Perianto, 2021). Critical thinking trains students to dare to find new ideas, ideas and solutions in a learning process. Training critical thinking skills means daring to try new things, receiving input from other people's perspectives, so that learners will build their knowledge better.

Critical thinking skills mean learners gather and analyse a range of information and use their previously learned knowledge to make conclusions. Critical thinking means thinking about logical things and making decisions that are considered correct (Fisher, 2008). Some experts define critical thinking skills as having the following characteristics: 1) the ability to formulate questions and answers to a problem clearly and accurately; 2) the ability to collect relevant information and think effectively; 3) the ability to conclude and find good solutions according to relevant criteria and standards; 4) open-mindedness;) the ability to communicate effectively to find solutions to problems (Paul & Elder, 2019) In line with that, one of the main skills needed to face the current global era is critical thinking. Critical thinking is a type of thinking that prioritises problem solving, formulaIting conclusions, calculating possibilities, and making decisions (Halpern & Dunn, 2021).

Based on the above, critical thinking can be defined as a rational approach to thinking that is used for communicating ideas, making decisions, analysing information and solving problems. (Novitasari et al., 2022).Therefore, critical thinking skills are among the most advanced thinking skills, used to identify problems and find reliable solutions. Some indicators of critical thinking skills include interpreting, analysing, evaluating and making decisions to solve problems.

Based on the previous explanation, to achieve critical thinking skills, a learning model that is appropriate to the learning needs of students is needed. One alternative learning model that can be a solution to improve students' critical thinking skills is the Reading Mapping and sharing learning model.

The RMS learning model is designed to stimulate students' learning by training them to gain initial knowledge. The advantage of the RMS model over other learning models is that it encourages students to be more active in reading, mapping information visually, and sharing their understanding with friends, thereby improving their literacy, information organization, and communication skills. The learning processs begin with reading activities and linking concepts by creating mind maps. The final stage is sharing the results of their thinking. The RMS model requires students to hone their higher-order thinking skills throughout the learning process. The steps of the RMS learning model are 1) Reading, learners read in depth a material obtained from various sources to obtain relevant information in the learning process; 2) Mapping, learners create mind maps by connecting ideas, ideas and main concepts that become the red thread of the information that has been obtained; 3) Sharing, learners communicate the results of the thoughts they get in the form of concepts or conclusions about a topic through presentation activities in front of peers (Hudson & Test, 2011). Reading Mapping and Sharing model creates a collaborative environment that supports discussion and exchange of ideas, which are key elements in the development of critical thinking. By sharing concept maps and viewpoints, learners are invited to question assumptions, compare perspectives, and strengthen their arguments based on facts. This learning model not only enhances cognitive abilities, but also fosters communication and cooperation skills, which are essential for holistic learning and the achievement of broader educational goals.

Referring to previous research by Ahmad Muhlisin entitled "*Innovation of New Learning Model on Science lecture to Improve Understanding Concept*". The results of this study are: The learning process received a positive response of 92.5%, students who learned by using the RMS model experienced 16% better concept understanding than students who learned with conventional methods (Ardiansyah & Akbar, 2024). Therefore, this study focuses on the application of the RMS model to train students' literacy, critical thinking and communication skills. Through a series of reading activities, creating mind maps and sharing the results of thinking in front of the class, it is hoped that students will be able to build their knowledge better and the learning process will be active and fun for students. Based on what has been stated above, the purpose of this study is to see the effect of the Reading Mapping and Sharing model on the critical thinking skills of fourth grade elementary school students on the material cultural diversity.

METHOD

This research was conducted using pre-experimental research methods with the type of one group pre test post test. The data obtained from this research is quantitative data obtained from observation activities. Quantitative research is a research method used to seek the effect of certain treatments on research subjects in strictly controlled situations (Sugiyono, 2022). This research focuses on the effect of applying the RMS learning model on students' critical thinking skills.The subjects in this research were class IV students totalling 28 people at one of elementary school in Jakarta. The following are the stages of applying the RMS learning model and the critical thinking skills of students in the learning process as displayed in Table 1.

Tabel 1. The Relatedness Between the Reading Mapping and Sharing Model and Critical Thinking Skills

Stages	Activity of Student	Critical Thinking Indicators
Reading	a. Read the text carefully to understand the content and catch the main idea. b. Note down difficult words or points that are not understood to ask later. c. Marking important parts in the reading text.	Exploring information: Exploring information from various relevant sources in accordance with the topic of discussion Identify the problem: Identify the cause of the problem appropriately in accordance with the topic of discussion.
Mind Mapping	a. Identify the main idea and supporting ideas of the text you have read. b. Create concept maps individually or in groups, drawing relationships between ideas with lines, symbols or keywords. c. Creativity in making mind maps.	Formulate questions: Formulate questions clearly, according to the topic, and encourage critical thinking skills. Provide solutions: Provide a variety of innovative alternative solutions in accordance with the problems that arise.
Sharing	a. Present the concept map to your group mates or the whole class. b. Responding to and answering questions posed by classmates and the teacher.	Make simple conclusion: Make simple conclusions that cover the content of the discussion with easy-to-understand sentences supported by accurate data.

RESULTS AND DISCUSSION

Results

The results of students' critical thinking skills are obtained from the results of observations made. In the critical thinking ability observation sheet there are 5 main indicators, namely 1) Formulate questions, 2) identify the causes of a problem, 3) gather information from various sources, 4) provide solutions and 5) draw conclusions. In the first indicator, namely formulating questions, students are asked to make questions through the 5W1H guide related to what students want to know in the learning topic being implemented. In the second indicator, learners are required to identify what causes the problems that arise from the topic. In the third indicator, learners collect information from various learning sources such as the internet, books and communication between peers to add insight in building their knowledge. In the fourth indicator, students are asked to provide ideas, ideas and thoughts on the problems that have been studied, so that students are expected to provide solutions to problems from the topic of discussion. In the fifth indicator, students draw conclusions from what they have learned. The following is a comparison of the results of students' critical thinking skills before and after the application of the RMS learning model.

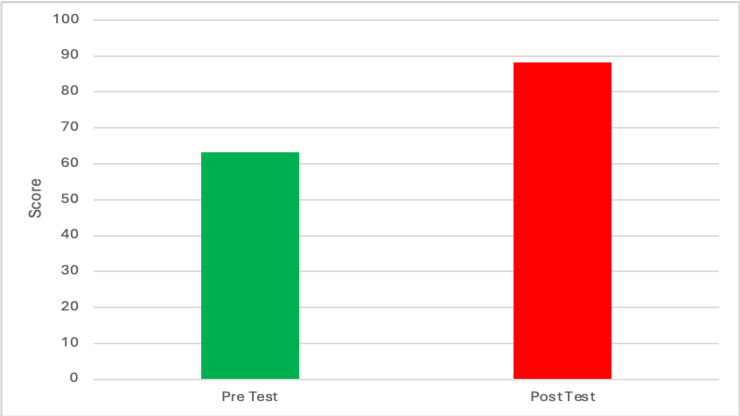

Figure 1. Total Score of Critical Thinking Before and After Implementation RMS Model

Before the application of the RMS learning model, the data shows the average results of students' critical thinking skills of 63.29%. This is caused by several factors including the learning process using conventional methods so that students are less stimulated in building their knowledge, lack of learning readiness where students immediately enter into the core of learning, the process of extracting information is not optimal and the lack of opportunity to express opinions in a learning process.

Based on the table above, the critical thinking ability of students in the experimental class shows an average result of 88%. These results were obtained through the application of the RMS model in the learning process. The RMS learning model has three main stages in its application, namely learners doing reading activities, making mind mapping and sharing the results of their thinking through presentation activities in front of the class. This provides an opportunity for learners to build their knowledge independently, through learning readiness, learning process and communicating the results of their thinking to peers.

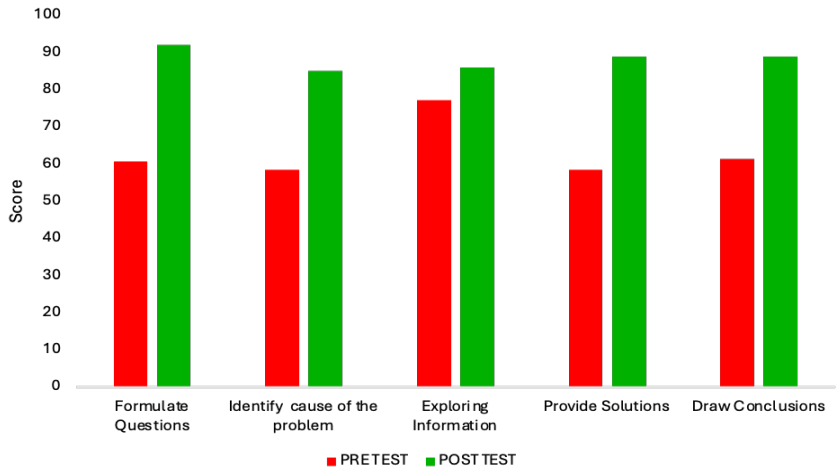

Figure 2. Score of Critical Thinking per Indicators

Discussion

The Reading Mapping and Sharing learning model can be an effective approach in developing learners' potential. This model encourages learners to actively read, map the main ideas, and share their understanding with the group, thus training the ability to analyse and synthesise information. Through this process, learners not only understand the material in depth, but also learn to critically evaluate information, identify relationships between concepts, and articulate their thoughts clearly.

In social science learning in elementary schools, the learning process runs well and is meaningful through the application of the RMS learning model. Based on the research conducted, the results obtained show a significant comparison from the pre test and post test. The RMS learning model has a positive impact on the learning process. In its application, students are required to be active in building their knowledge. Starting from the reading stage, where students explore information from various reading sources with the aim of expanding their knowledge so that they have various points of view in responding to a matter. In the activity of making Mind Mapp, learners collaborate with their group mates in connecting ideas, main ideas and supporting ideas in an effort to provide a solution to the problem they face. After that, at the sharing stage, learners convey the results of the concept maps they have made. After the presentation activity, a question and answer session was held and responded to the results of the concept map that had been made, this was done to stimulate students' critical thinking skills in building their knowledge.

The role of the teacher during the learning process is as a facilitator, ensuring that learning takes place properly in accordance with the learning model used. Educators are expected to pay attention to every important element in the learning process, ensuring that students actively participate in following the learning. Learners' critical thinking skills include, activities to formulate questions, identify the causes of problems, dig for information, provide solutions, and draw conclusions from what has been learned. Of the five indicators above, the activity of formulating questions has the highest score because the RMS learning model requires students to build more knowledge and seek information from various sources, thus stimulating students to ask questions about the topics studied. In line with this, the RMS learning model encourages students to explore information through questions so that they are able to think more deeply (Toews et al., 2021).

First indicator, namely digging for information, students are given space to find various sources of information. Previously, sources of information were limited to textbooks, but in this study students were allowed to look for other sources such as the internet. This received a good response from students, through this activity students felt easier to access information, broaden their horizons and increase motivation in learning.

The second indicator is identifying problems, learners are given space to identify problems through question and answer activities and discussions related to new issues that arise in the surrounding environment. Through this activity, learners look for the causes of the problems that occur and the impact caused if the problem is not immediately sought a solution. In addition, learners are asked to write down key and important words from the discussion carried out as new insights and knowledge.

The third indicator is creating questions. At this point, learners are given an issue related to cultural diversity. Learners are asked to express their thoughts through questions related to the issue given. This is done to provoke knowledge about what they want to learn about cultural diversity. This indicator is the highest indicator in critical thinking skills, this happens because it is related to previous activities that are able to stimulate their knowledge so that many questions arise in the minds of students.

In the fourth indicator, learners are asked to bring out the content of their thoughts by providing concrete solutions to the questions that arise in their minds. Learners are given space to find the best solutions from various sources. The results of the questions that arise and the solutions presented are poured through mind maps. This is expected to build awareness and motivation to learn independently for learners, that knowledge must be built through various learning processes.

Last indicator of critical thinking skills, students are asked to make simple conclusions from a series of activities that have been carried out related to the learning material studied. So that the knowledge built through a series of learning processes can be meaningful in the minds of students. Thus, this research illustrates how students' critical thinking skills emerge in a learning process.

This research there are several obstacles encountered by researchers, the first is time management. The RMS learning model has three stages of activities, so teachers must really manage time in each of these stages. The second is the stage of making Mind Mapping. At the elementary school level, many students are not used to making concept maps in the learning process, they are used to writing with the usual paragraph sentence structure, so some students experience confusion at this stage. Therefore, it is important to prepare and introduce this learning model so that students really understand the steps in making concept maps. The disadvantage of this learning model is that it requires the creativity of students in making visualisations of their ideas so that the information is more interesting and complete (Segara et al., 2018). However, these shortcomings become challenges and opportunities for educators to create interesting, fun and meaningful learning for students. Of course, support from the education unit, namely direction from the principal, peer input and facility support are no less important factors in improving the quality of learning.

CONCLUSION

This study aims to provide an overview of the effect of the RMS learning model on students' critical thinking skills in IPAS subjects in class IV. The results showed that the RMS learning model had a positive impact on the learning process and outcomes. Teachers have successfully selected and implemented an effective learning model to improve students' critical thinking skills. Indicators of critical thinking skills in this study include, activities to formulate questions, identify the causes of problems, explore information, provide solutions, and draw conclusions from what has been learned. This research uses an experimental method, with the type of one group pre test post test. Where the results of the study compared the critical thinking skills of students before and after the application of the RMS learning model. The results showed that the average critical thinking ability of students before the application of the RMS learning model was 63%, while the average critical thinking ability of students after the application of the RMS model showed 88%. One of the challenges faced by this research is the source of information. If you only rely on sources of information from textbooks, the information you get will be very limited. Therefore, the results will be maximised if there are other sources of information such as the internet to optimise the expected results. Some suggestions that can be given to optimize the Reading, Mapping, and Sharing (RMS) model for teachers is choosing reading materials that are relevant and appropriate to the developmental level of the students, providing guidance and instruction in creating mind maps, and facilitating and guiding students in critically analyzing information during discussion and presentation sessions. This study concludes that the use of the right learning model will be an effective solution to stimulate students' critical thinking skills according to their developmental stage. The results of this study also recommend professional development for teachers to continue to develop learning models so that they can be a reference for future researchers in an effort to improve the learning process words.

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