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First Grade Elementary School Students' Reflective Thinking Skills in Thematic Learning

Rahayu Setyowati[1*], Suprapti[1]

[1]Pendidikan Guru Madrasah Ibtidaiyah, Fakultas Ilmu Tarbiyah, UIN Raden Mas Said, Indonesia

*Corresponding author: rahayusetyowati564@gmail.com

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ABSTRACT

This study elucidates the reflective thinking ability as one of the higher-order thinking skills (HOTS) in thematic learning of grade I students. It also identifies factors affecting students' reflective thinking ability at MI Al-Islam Kartasura. This study is nested in a qualitative method with a descriptive case study. Involving students of class IA and a class teacher, data collection was carried out using non-test techniques in the form of observation, interviews, and documentation. The results indicated that students could answer the "why" and "how" questions given by the teacher with various answers. They showed their interest or feelings as well as expressed their opinion on pictures or objects about pictures presented by the teacher. They also enjoy having a simple game. Factors supporting the reflective thinking ability as a part of HOTS are the availability of media, infrastructure, and learning resources, good delivery of lessons by teachers, and curiosity. The obstacle is that its execution takes a long time and demands a high level of focus in student learning.

INTRODUCTION

Globalization has demanded individuals be able to survive the more pervasive international competition. Individuals should be responsive and quality human resources to thrive; one effort that may be made is to increase the quality of education in the country. Novianti (2014) states that education must focus on increasing students' thinking skills rather than just stressing concept understanding and mastery. This is in line with the 21st-century national education paradigm initiated by the Research and Development of the Ministry of Education and Culture in 2013 (Wijaya, Sudjimat, & Nyoto, 2016) that Education is no longer simply about making students knowledgeable; it is also about developing students' skills to

access resources, to be critical, logical, creative, to be socially capable, and to participate in problem-solving. Tendrita and Sari (2020) stated that higher-order thinking skills (HOTS) are one of the skills that students must have to thrive in 21st-century learning. Thus, HOTS will be the direction of curriculum development in Indonesia in the future, as well as the objective of 21st-century education.

Higher-order thinking skills may be developed by focused learning; thinking that interprets the nature of things included in it rather than just memorizing them verbally or exactly as they are (Beddu, 2019). In short, HOTS can be interpreted as a student's way of thinking towards a higher cognitive level that includes analyzing (C4), evaluating (C5) and creating (C6) (Nugroho, 2018). According to King (in Karli, 2018), it consists of logical, reflective, metacognitive, and creative thinking. Thus, reflective thinking is one of the categories of HOTS (Sani, 2019).

Reflective thinking skills are the process of acquiring experience in problem-solving by identifying what is previously known, modifying understanding to solve problems, and applying the output produced in new scenarios (Angkotasan, 2013). John Dewey defines reflective thinking as anything done actively, repeatedly, with thought and belief based on clear reasoning and capable of drawing conclusions or resolving a solution to a given problem (Ghanizadeh, Al-Hoorie, & Jahedizadeh, 2020). In summary, reflective thinking skills take the shape of an exercise that requires students to try to connect their newly acquired information to solve new problems related to their prior knowledge (Karli, 2018). Students will find it easier to achieve learning objectives and modify behavior if they think reflectively (Başol & Gencel, 2013). Thus, reflective thinking is essential, particularly when students work on a mid-term assignment, a final-term assignment, an end-year assignment, or other tests. When students can think critically, they are less likely to give hasty responses, especially when it comes to HOTS-based evaluation questions.

At Elementary School, reflective thinking has been taught in thematic learning at all grades. According to Wahyuni, Setyosari, and Kuswandi (2016), Thematic learning use themes to connect different subjects to give students meaningful learning experiences. HOTS adoption in primary schools does not have to wait until students are in higher grades, but may begin as early as first grade (Kusainun, 2019). MI Al-Islam Kartasura is one of the schools worth considering for the HOTS adoption review. This school is regarded as having been the first to implement HOTS in 2020, and it is a quality school with numerous student achievements.

Therefore, researchers are interested in taking a deeper look at students' reflective thinking ability in thematic learning.

METHOD

This descriptive case study aims to describe students' reflective thinking ability as one of the categories of HOTS in the thematic learning of first-grade students, as well as the factors that influence its adoption at MI Al-Islam Kartasura. The research was conducted from April 2021 to October 2021. The subjects in this study involved a teacher and 26 students of class IA as well as the principal of the Madrasah. Data collection in this study used non-test consisting of observation, interviews, and documentation.

Observations were made to find out students' and teachers' routines related to reflective thinking ability. Semi-structured interviews were conducted by interviewing a class teacher and three students to explore more in-depth information. Documentation was completed by examining and photographing pertinent school documents to the research objectives, such as documents on school activity, annual work plan, organizational structures, school profile, and lesson plan. Data analysis in this study consisted of 1) data reduction by collecting data and selecting the main things related to the research objectives; 2) data presentation by describing the data that has been obtained; 3) drawing conclusions by connecting or verifying the results of interviews with the data and observations found.

RESULTS AND DISCUSSION

Based on the results of interviews and observations, the teacher familiarized and trained students to do reflective thinking. First, in the question-and-answer session, students could answer questions from the teacher. In the main learning activities, the teacher often asks students "why" and "how" questions.

Table 1. Students' Conversation

Lesson	Conversation
Theme 4, sub-theme 1 of learning 5	Teacher: Why do we love each other in our family? Students: To get along, ma'am/ So that the family remains intact/ To be happy forever".
Theme 4 sub-theme 2 learning 1	Teacher: Why do we have to have breakfast before going to school? Students: So, we're not hungry / To make us not sleepy/ To be focused / To be strong

Lesson	Conversation
Theme 4, sub-theme 2 of learning 4	Teacher: Tell me how to do gardening. Students: Make a hole in the ground/ Plant flower/ fertilize them
Theme 4 sub-theme 2 learning 5	Teacher: Why do we have to study hard? Students: To be smart/ To be clever/ To get good grades/ To achieve goals
Theme 4, sub-theme 2 of learning 6	Teacher: How do you wash the dishes? Students: With water/ Put some soap/ Rub it

Table 1 indicates that from one question given by the teacher, students could provide various answers although sometimes students still required assistance from the teacher in answering them. In the question-and-answer session, students have been invited to think reflectively. Before asking the question, students had been taught the theory by the teacher or had experience experiences based on the themes presented in the lesson. It was concluded that students have developed HOTS where they were no longer looking for answers in books or texts. The answers came out of their own thoughts or experiences. Whatever the answers from the students, the teacher considers it a process. This is in line with the theory o Krulik and Rudnick (Fuady, 2017) that to train students to think reflectively, the teacher can ask questions such as "what if", "why", "what went wrong", and "what did you do".

Second, students could show their interests or feelings. In theme 4, sub-theme 1 learning 5, initially students were presented with a picture and text "Playing Together". The text was read by the teacher and repeated by students then students wrote the summary of the text according to the discussion. The teacher asked, "Who likes to play at home?"; “What games do you usually play?”; “Who are you playing with?”; "How do you feel when you play?" Next, in theme 4, sub-theme 2, learning 5, after the students observed the pictures with their parents, the teacher asked, "How do you feel when your parents pay attention to you when you study?"

The teacher's questions indirectly explore students' interests or encourage them to express their feelings. In thematic learning, interest has a significant influence in both learning achievement and learning inhibition (Hidayatullathifah & Sujadi, 2017). If there is a lack of interest in learning, it will result in laziness in learning, resulting in less-than-optimal learning outcomes. Silviani, Jailani, Lusyana, and Rukmana (2017) explain that interest involves attention to an object.

Third, students could comment on the pictures or objects. In theme 4 sub-theme 1 learning 5, the teacher brought media to students in the form of balls, piggy banks, and rubik’s cubes. Almost all students could choose and distinguish the shape of objects from the three types

of objects; the round, triangular-shaped, or rectangular objects. Here, pictures or objects serve as a medium for students to tell stories. The process of selecting and distinguishing is included in the HOTS of cognitive analysis (C4) and involves students' reflective thinking processes (Jessen & Mirsky, 2008).

Figure 1. Students Think Reflectively by Choosing and Distinguishing the Shape of Objects

Fourth, students could play simple games. In theme 4 sub-theme 2 learning 1, which is about 10 minutes before the bell, the teacher distributes blank tickets to students. Students were instructed to write, draw, or describe what they did not understand that day or which subject was the most challenging. The ticket was handed over to the teacher in an orderly manner while the students leave the classroom. This simple game shows that students are invited to think reflectively, which includes two stages. First, students convey their knowledge and experience when asked to recall events from the start of learning to the finish. In the second stage, it invited students to rethink and explain their feelings about the most difficult lesson in the form of writing or pictures. The third stage was to evaluate students' experiences and give enrichment(Karli, 2018).

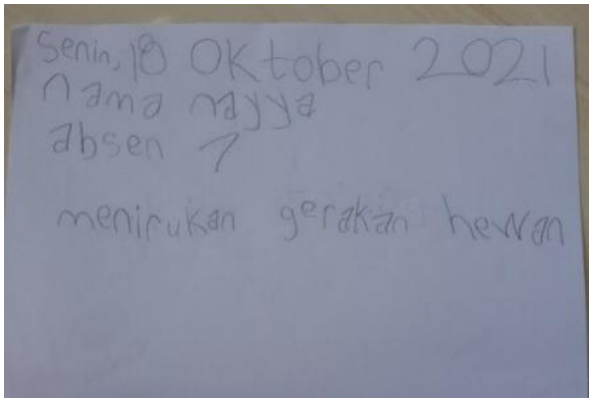

Figure 2. Student Writing Results in a Simple Game Involving Reflective Thinking

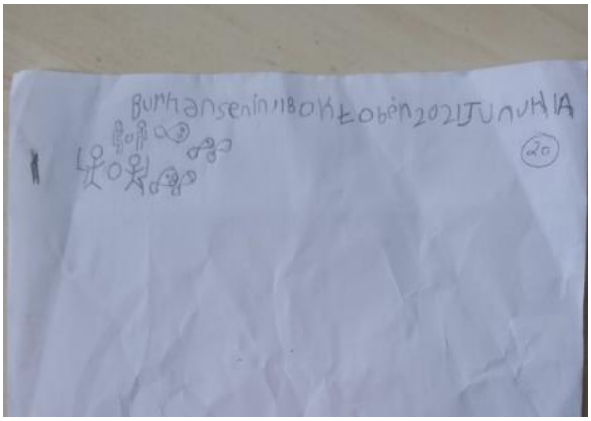

Figure 3. Student Drawings in a Simple Game Involving Reflective Thinking

HOTS Evaluation for Reflective Thinking Ability

The assessment for reflective thinking was taken from students' daily lives when answering questions from the teacher, working on monthly knowledge questions, working on project assignments, and when working on a mid-term assignment, final-term assignment, or end-year assignment. The questions given by the teacher require students to think reflectively. The results of the HOTS-based learning evaluation show that the scores obtained by students relatively exceed the minimum completeness criteria in thematic subjects. For example, during the daily assessment of reflective thinking, almost all students can answer the teacher's questions very well. All teachers ask questions that are evenly distributed to all students and are matched to the subject matter that day.

Figure 4. Students Doing Knowledge Questions

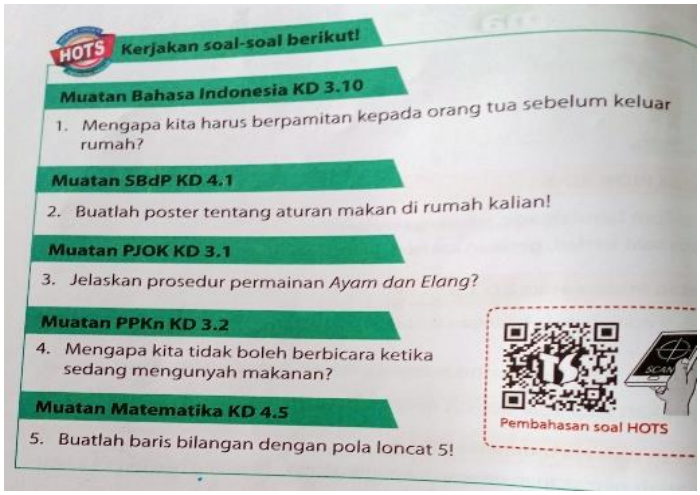

Figure 5. Examples of Questions that Students Must Work On

Supporting Factors of Students' Reflective Thinking Ability

First, is the availability of media, infrastructure, and learning resources. HOTS, especially reflective thinking, requires adequate learning infrastructure, such as LCDs and projectors, HOTS-based textbooks, reflective modules, PCs/laptops, concrete objects, pictures, videos, and so on. Based on the results of observations and documentation of researchers, classroom teachers have used information technology and presented interesting media in each lesson, such as balls, piggy banks, rubik's cubes, number cards, and pictures. The integration of reflective thinking processes in the learning media will have a positive impact on students' character. This statement confirms Demina (2016) and Rais and Aryani (2019) who state that learning reflective thinking through a learning media can provide reinforcement to students so that it affects student behavior and character. Hence, students will be able to reflect on what they read and see in the form of behavior and at the same time strengthen the character of the student's personality.

The textbooks or learning modules containing reflective thinking skills are intended to develop students' HOTS. One of the abilities is the ability to analyze (Permata & Mustadi, 2020). This is also reinforced by Vicary, Young, and Hicks (2017) who explain that The integration of reflective thinking processes in a learning media will be able to increase the quality of students' thinking, particularly in the analyzing process.

Figure 6. HOTS-based student textbooks

Second, the more creative teachers are in giving lessons, the more relevant, contextual, and interesting the learning will be, and the message or substance of learning will be easily absorbed by students. Based on the results of observations, The classroom teacher has succeeded in turning on the ambiance and classroom setting, and students may readily assimilate the essential subject. In addition, the class teacher is also friendly and communicative when interacting with students. Concerning the delivery of material by teachers by teaching students to think reflectively, educators must first become reflective teachers. Dewey in Suharna (2018) states that there are two roles of teachers in training students to think reflectively. First, the teacher must be an observer of students in the classroom. Second, the teacher must create an organized classroom environment to support student learning. A reflective teacher will be able to develop their professionalism by understanding all that is best for their students.

Third, students' curiosity. Generally, students have a high curiosity about new things that are displayed by the teacher, in the form of pictures, game tools or concrete objects. When students' curiosity is high, learning is more than simply knowing; it is also about researching to learn more so that the learning process is relevant for students. This curiosity also drives students to participate in learning activities that increase their knowledge and ability to think critically (Mardhiyana & Sejati, 2016).

Inhibiting Factors of Students' Reflective Thinking Ability

First, inhibiting factor is that it requires a long time for preparation and implementation in thematic learning, such as preparing lesson plans, making HOTS-based questions and their evaluations, adjusting to learning media, or material delivery. According to the findings of the interviews, classroom teachers must prepare their energy, thoughts, and psyche for each lesson

since students still require teacher guidance and direction in each lesson (Samosir, Kuntarto, & Alirmansyah, 2020). Students in grade I must develop a long-term reflective thinking process beginning at the age of 7-8 years old for their brain memory to survive in the long run. As a result, teaching reflective thinking is a time-consuming and ongoing effort. For example, when students work on HOTS-based practice questions, it certainly takes a little longer to answer, it's different when working on regular questions for low-level thinking skills. This is due to the fact that the reflective thinking category demands students' active thinking and the ability to formulate problems (Sani, 2019).

The second factor is a lack of focus in student learning. Students will have trouble retaining the teachings delivered by the teacher if they are not focused on learning. Winata (2021) explains that students' lack of concentration in learning can result in poor learning quality, less attention to learning, and a lack of understanding of the subject. This is inversely related to the HOTS learning category of reflective thinking, which requires a high level of learning attention. Based on observations, the class teacher always asks students to drink water when changing study hours and eat lunch when it's time to rest, checks students' health conditions, and conditions the classroom to always be clean, tidy, and comfortable.

CONCLUSION

Overall, the process of reinforcing first-grade students' reflective thinking in thematic learning at MI Al-Islam Kartasura has been running coherence and conformity with concepts and theories. This is supported by the availability of media, infrastructure, and learning resources, the delivery of good material by the teacher, and the curiosity of students. The results showed that students could answer the "why" and "how" questions given by the teacher with various answers. Students could also show their interest or feelings towards pictures presented by the teacher. They expressed their comment or opinion on pictures or objects. In addition, they enjoyed the simple game provided by the teacher. The procedure takes a long time, and there is a lack of attention to student learning.

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