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Analysis of Supporting and Inhibiting Factors of Students' Critical Thinking Ability at Islamic Elementary School

Amin Supartin*

Islamic Elementary School Teacher Education, Faculty of Tarbiyah, UIN Raden Mas Said Surakarta, Indonesia

*Corresponding author: amin.supartin0311@gmail.com

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ABSTRAK

This research is motivated by the many factors influencing students' critical thinking skills. The purpose of this study was to review the supporting and inhibiting factors for students' critical thinking skills at MIN 4 Sukoharjo, Kab. Sukoharjo, Central Java. This research is descriptive with the type of qualitative research and data collection through interviews and observation. The resource person interviewed was one of the class VI teachers at MIN 4 Sukoharjo. The research showed several supporting and inhibiting factors for students' critical thinking skills at MIN 4 Sukoharjo. The results of the research are in the form of supporting factors for students' critical thinking skills as follows: (1) School facilities in the form of Indonesian Madrasah Competency Assessment/Asesmen Kompetensi Madrasah Indonesia (AKMI) books for class V; (2) Implementing the 2013 Curriculum; (3) School policies that free teachers to explore students, and (4) Selection of appropriate learning methods and models. Meanwhile, the results of the research were in the form of inhibiting factors for students' critical thinking skills as follows: (1) The facilities provided for those other than class V were only in the form of providing HOTS questions based on the subject by each teacher; (2) Teachers are less creative and innovative which causes learning activities to be not conducive; (3) the intellectual level of students and limited learning time, and (4) teachers do not master IT.

INTRODUCTION

Quality education should equip students with higher-order thinking skills to support developing the ability to formulate new ideas and solve problems (Zubaidah et al., 2017). Higher-order thinking skills can be developed in every field of knowledge and level of education, including in elementary schools. One component of higher-order thinking skills is critical thinking skills (Mahanal et al., 2019).

The current era of globalisation makes it easy for someone to get information from various sources quickly. While the information is easy to obtain, some are correct, and it is not uncommon for the information conveyed to be unverifiable. Critical thinking skills need to be mastered by everyone, including students, to select various information circulating so that it can be ensured that the information is good and correct (Ku et al., 2019).

Critical thinking skills are abilities whose mastery and development are important for everyone, including students, to achieve learning success. Critical thinking is a very beneficial skill for students because it prepares them for success in life and is also used to solve various problems of everyday life (Almulla & Al-Rahmi, 2023). Critical thinking skills must be developed along with the growth mindset to enable someone to examine, evaluate, and develop their ideas to solve problems (Magdalena et al., 2020). By mastering critical thinking skills, students are expected to be able to deal with various social problems and problems related to science and solve these problems effectively (Susilo et al., 2020).

Critical thinking skills are essential for living, working and functioning effectively in all other aspects of life (El Soufi & See, 2019). The role of the teacher is now more complex than before, for example, how the teacher responds to the various needs of students who are constantly changing due to the rapid development of technology and the demands of society to achieve excellence, as well as changes in the social construction of society and globalisation. Critical thinking is a cognitive activity related to the use of reasoning. Critical thinking means using mental processes, such as listening, categorising, choosing, and judging or deciding. Critical thinking skills provide the right direction in thinking and working and help determine relationships between things more accurately. Therefore, critical thinking skills are needed to solve or find solutions to a problem and manage tasks (CT and PS). To become habit, developing critical thinking skills involves the integration of several abilities: observation, perception of information from various points of view, analysis, reasoning, judgment, decision-making, and persuasion. The better the development of these abilities, given that the habit has been formed, we will be better able to solve complex problems with satisfactory results.

Critical thinking skills, including learning, are important in determining student success in life. Thus, one of the expected outcomes of the learning process in schools is that students have mastery of critical thinking skills. But in fact, students' critical thinking skills in Indonesia are still relatively low. As evidenced by several previous studies, the results show that students' critical thinking skills in Indonesia are relatively low (Fuad et al., 2017; Marlina et al., 2018; Setiawati & Corebima, 2017; Mahanal et al., 2016). Related to this, several schools in Surakarta,

Indonesia, showed that the test instruments were still dominated by multiple-choice questions that only measured the ability to remember (C1) and understand (C2). The results of related observations regarding students show that students are not used to analysing questions. Students are only used to remembering the material and then answering rote-type questions. The results were reinforced through interviews with students who preferred multiple-choice rather than analytical questions because they felt less confident with answers requiring opinions.

Critical thinking skills are skills that cannot be transferred instantly to students. Critical thinking is an ability that involves common sense, which is learned and practised along with one's growing process (Cahyono, 2017). This statement shows that the formation of critical thinking skills in a person is influenced by internal factors related to the growth process. In addition, forming critical thinking skills is inseparable from external environmental factors. These factors can be in the form of facilities provided by schools, existing school policies, learning methods and models applied, and mastery of IT to conduct learning. Therefore, it is necessary to research to further explore the supporting and inhibiting factors of students' critical thinking skills at MIN 4 Sukoharjo, Kab. Sukoharjo, Central Java.

METHOD

The research conducted at MIN 4 Sukoharjo is descriptive in nature. This study seeks to describe phenomena or events systematically according to the conditions in the field. This type of research is qualitative research, by discussing students' critical thinking skills. Interviews and observation carried out data collection techniques in this study. The interview was a structured interview where the researcher had prepared detailed and complete questions for the informant. These questions include:

1) Facilities related to students' critical thinking skills;
2) School policies relating to students' critical thinking skills;
3) Learning methods and models used by teachers to support students' critical thinking skills;
4) Mastery of IT to support students' critical thinking skills, as well
5) Supporting and inhibiting factors of students' critical thinking skills.

The resource person interviewed was one of the class VI teachers at MIN 4 Sukoharjo. As evidence of having conducted interviews, the researcher also attached documentation in the form of photographs after the interviews. This study conducted non-participatory observations, with researchers only observing without interacting with the studied subjects. This observation

was carried out to determine the supporting and inhibiting factors for students' critical thinking skills at MIN 4 Sukoharjo.

The data analysis technique used in this study is the data analysis model of Miles and Huberman. The steps for analysing research data include data collection, reduction, data display, and conclusive drawing or verification, as shown in the graph below (Sugiyono, 2013):

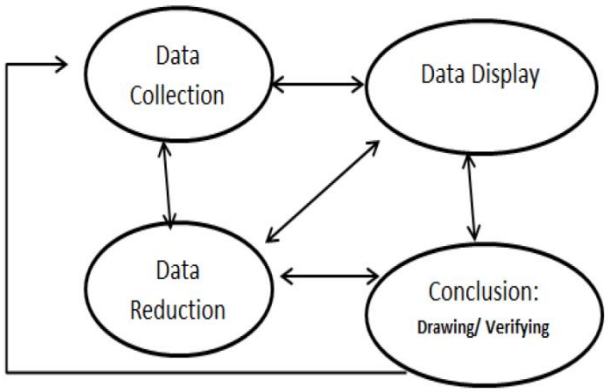

Figure 1. Components in Data Analysis (Interactive Model)

1. *Data Collection*

   In this step, the research activity is focused on collecting field data. The data obtained in this study were in the form of data from interviews with one of the class VI teachers and also observations of learning activities. After the data is collected, the next step is that the researcher performs data reduction.

2. *Data Reduction*

   The data used in this study were an interview with a class VI teacher and an observation of learning activities. Researchers use data collection because it can assist researchers in obtaining data about analysing supporting factors and inhibiting students' critical thinking skills.

3. *Data Display*

   The researcher describes the results of the interviews in the form of interview excerpts with one of the class VI teachers and reports on the results of direct observations presented in the form of descriptions.

4. *Conclusion Drawing/verification*

   Conclusion Drawing/verification is the final stage carried out with meaning through data reflection. The researcher reflected on the results of the data presented by completing

or rewriting field notes based on interviews with one of the class IV teachers and observation of learning activities. When reflecting, you need to be careful not to make up stories that do not follow the results of interviews or observations. Then conclude/verify by categorising themes according to the research focus.

RESULTS AND DISCUSSION

Based on the results of the research and analysis, the supporting factors for the thinking skills of students at MIN 4 Sukoharjo are:

a. School facilities in the form of AKMI books for class V

According to Aida et al. (2019), School facilities are one of the factors that can support critical thinking skills. This includes a good school environment and learning media used. Good media and a learning environment will create a good learning process for schools in critical thinking. In addition, using media can provide new experiences for students and make it easier to understand learning material. Therefore the facilities at school are very useful for the continuity of learning.

Following this, analysis of interview data revealed that at MIN 4 Sukoharjo, there are facilities that support students' critical thinking skills, especially fifth-grade students. The facility is in the form of an AKMI book. This AKMI book contains HOTS questions that require students to think critically to understand and solve problems so that they can be used to measure students' critical thinking skills. The AKMI book facility is also used to support students in preparing for and dealing with ANBK (Computer-Based National Assessment). However, what is unfortunate is that this AKMI book facility is only specifically for fifth-grade students because fifth-grade students will face ANBK. The following is an excerpt from the teacher's interview regarding this matter:

> *"For critical thinking support facilities in the form of AKMI books specifically given to grade 5 students. This AKMI book contains HOTS questions for ANBK preparation."*

b. Implementing the 2013 Curriculum.

A curriculum is a tool, program and educational design that must be updated regularly and continuously according to the needs of students along with the development of science and technology. The curriculum set by the current government is the 2013 curriculum, where the key to successful implementation lies in the collaboration of teachers, students,

and parents (Saputri, 2020). The 2013 curriculum emphasises that a learning process that develops and should be centred on students with active learning patterns seeks and is strengthened by learning models appropriate to the content of learning materials (Putu, 2018). This causes students to be able to think at a higher level and construct their thinking based on learning patterns of critical thinking.

Based on the results of observations, MIN 4 Sukoharjo has implemented the 2013 Curriculum. According to Machali (2014), the 2013 Curriculum is designed to answer the needs of modern times. In the 2013 Curriculum in learning in class, teachers must be more creative in conveying material to their students. In addition, teachers are also required to put more emphasis on process, not on results. The purpose of this is that students, as the main target of this curriculum change, are expected to be able to become individuals with character. In addition, teachers must apply students' critical thinking skills as an extension of the government in schools and in their learning schools. This is realised quickly for demands on teacher performance in changing teaching methods and the roles and responsibilities of non-formal educators in familiarising students to apply critical thinking in learning.

c. School policy that frees teachers to explore students.

School policy is the school's effort to realise the school's ideals. Based on the results of the interviews at MIN 4 Sukoharjo, school policies related to critical thinking are more emphasised by teachers to maximise students. Teachers are free to explore students but must still adapt learning to the intellectual and attitudes of students. The teacher expressed this in the following quote:

> *"School policy is more emphasised on the teacher to maximise learning. In actual implementation, teachers are freed to explore students but also adjust to the abilities of students. The teacher's treatment in each class is different even though the material delivered is the same because it is adjusted to the self-control of each student."*

Implementing learning to improve student's critical thinking skills should be a daily activity carried out by teachers at school. Policies are needed from school principals as an effort so that learning to improve students' critical thinking skills can be carried out in schools consistently according to the demands of the standard educational process. The intended effort can certainly run optimally if the principal perceives that learning to

improve students' critical thinking skills is needed by students. Efforts are being made to encourage teachers to learn to improve students' critical thinking skills in various ways, including discussing among fellow teachers and seeking information from schools that already know about learning to improve students' critical thinking skills. In addition, school principals also seek to increase knowledge about critical thinking, ask teachers to reduce writing multiple choice questions, involve teachers in training, and support teachers.

d. Selection of appropriate learning methods and models.

Teachers must be able to create learning that trains students' critical thinking skills. The selection of appropriate learning methods and models will activate all students' potential, which in turn can improve their critical thinking skills. At MIN 4 Sukoharjo, the average teacher applies scientific methods and learning models. This condition is reflected in the teacher's answer:

> *"For the standard learning method, teachers use scientific methods. It can be seen from class observations when students read, ask questions, experiment, and process daily data. However, weaknesses are sometimes found in applying the scientific method. For example, limited time in communicating material to students so that the material cannot be conveyed as a whole. Sometimes the teacher must also catch up and combine one material with another."*

The scientific method and model provide students with an understanding of using scientific methods and models, and information can be obtained anywhere and anytime (Daryanto, 2014). The scientific approach is important to use in learning because the scientific approach can develop various skills such as critical thinking, communication, collaboration, investigative, and character behaviour. After all, the learning experience provided can fulfil educational goals and be useful for solving real-life problems (Machin, 2014).

Then as for the inhibiting factors in students' critical thinking skills MIN 4 Sukoharjo:

a. The facilities provided for those other than class V were only in the form of providing HOTS questions based on the subjects by each teacher.

As previously explained, school facilities are one of the factors that can support critical thinking skills (Aida et al., 2019). This means that if the facility does not exist or is not provided, it can become an obstacle for students to think critically. If class V students are given facilities in the form of AKMI books, it is different from students other than class V.

Based on the results of interviews. The teacher revealed that:

> *"The HOTS questions have been implemented in learning at all grade levels. The only difference from grade 5 is the AKMI book. Other than grade 5, the HOTS questions are applied based on the content questions for each subject."*

So it is known that students other than class V only practice critical thinking through HOTS questions given by their respective subject teachers. Giving HOTS questions depends on whether the teacher gives practice on HOTS questions or not. If the teacher does not provide practice on HOTS questions, it means that no facilities support students' critical thinking abilities. The teacher does not support students' critical thinking skills.

b. Teachers are less creative and innovative, which causes learning activities to be not conducive.

Applying the 2013 Curriculum requires teachers to be more creative and innovative in delivering material. Based on the observations that have been made, one of the inhibiting factors for students' critical thinking skills at MIN 4 Sukoharjo is that teachers are less creative and have not been able to master creative and innovative learning. Even though as a teacher, mastering creative and innovative learning is important. With creative learning and innovation, teachers can create a conducive and active learning atmosphere to foster motivation in students to be actively involved in the learning process, which can improve the quality of learning itself and students' critical thinking patterns.

Less creative and innovative teachers cause learning activities to feel boring and monotonous (Susilo et al., 2021). Not all learning processes go well, and there are problems with students not listening to the teacher's instructions. The learning process is a reciprocal relationship between teachers and students, but many teachers are still found to be the centre of the learning process. Supposedly, the teacher here is only a good facilitator and guide in completing the tasks carried out by students. The fact found by researchers in this study is that students are not given enough space to explore in the classroom during the learning process. The lack of space for students to explore is monotonous and boring. It causes students not to listen and pay attention to the teacher properly. Apart from that, some students are ignorant of friends, so they disturb other friends or are even engrossed in playing or chatting with them.

c. The intellectual level of students and learning time limitations.

Based on observations, several teachers at MIN 4 Sukoharjo have been able to apply creative and innovative learning to improve students' critical thinking skills. However, the obstacle is the intellectual level of different students, so the teacher must adjust and align everything. This causes the teacher to need more time to complete the learning material delivered if it is intended to improve critical thinking skills. It will take longer for students with low intellectual levels to think critically than for students with high intellectual levels. So that students whose intellectual are classified as low can still take part in learning and are not left behind, causing the teacher to need more time to align all their students so that there is no inequality or lagging, even though the time provided by the school is relatively short.

d. Teachers do not master IT.

Information and communication technology have a very important role in the world of education today (Shofia & Ahsani, 2021). Technological advances are now experiencing developments along with the progress of the times, especially in education (Ibrohim et al., 2022). With technology, education will also experience a more modern change, different from the old days when the models and learning media were still simple and manual. In ancient times, they only used blackboards made of wood and chalk. Compared to today, education and increasingly sophisticated technological advances are developing rapidly. Today's educational media all use sophistication from technology, such as displaying projectors so that teachers don't bother writing on the blackboard. Not only that, in ancient times, students who obtained learning resources had to be diligent in going to the library to find reference sources for learning and reading books diligently. It's different today because students have to look for material from the internet, such as Google and YouTube. There are already various learning materials to target. Almost all students today are proficient in using technology. That way, teachers should also be required to master IT, but unfortunately, at MIN 4 Sukoharjo, not all teachers master IT. This sentence is the opinion of the teacher who expressed these conditions:

> *"For IT mastery, students at MIN 4 Sukoharjo school are still limited to special ICT teaching teachers, for last year if approaching ANBK, new students were trained on computers because they were still limited to special teaching teachers, IT support facilities were quite good, last year the school had 15 computers and for this year has*

increased to 30-35 computers, so, for now, the provision of computers is also more organised. If there were 30-35 students in one class in the past, then the training had to be carried out in two sessions; this year, it can be done in one session. The plan to increase IT mastery for students will include additional hours regarding ICT material outside of student subject hours, but this is still at the planning stage by the deputy head of the curriculum."

Based on this, it is known that at MIN 4 Sukoharjo, teachers who already master IT are the only teachers who teach specifically ICT. This condition is unfortunate because if all teachers or most teachers can master ICT, they can invite students to think critically by utilising ICT. If the teacher can utilise ICT, learning to improve students' critical thinking skills is more varied, and students don't feel bored.

Critical thinking skills are important for students to have. Students with critical thinking skills are expected to be able to solve problems related to real life or those that students often encounter in everyday life. This follows the opinion of Syafitri (2021), who argues that critical thinking is very important for students because by thinking critically, students can solve all problems that exist in the real world (Syafitri, 2021). Learning using PBL implemented in class can be improved. This agrees with the opinion that a problem-based learning environment in the classroom is useful for developing creativity and critical thinking skills.

CONCLUSION

Based on the results of research conducted at MIN 4 Sukoharjo, Kab. Sukoharjo, Central Java, has several supporting and inhibiting factors for students critical thinking skills. The results showed several factors supporting students' critical thinking skills as follows: (1) School facilities in the form of AKMI books for grade V, (2) Implementing the 2013 Curriculum, (3) School policies that free teachers to explore students, and (4) Selection appropriate learning methods and models. In addition to the supporting factors, the results of the study also show that the inhibiting factors for students' critical thinking skills are as follows: (1) The facilities provided for those other than grade V are only in the form of providing HOTS questions based on the subject by each teacher; (2) Teachers are less creative and innovative which causes learning activities to be not conducive; (3) the intellectual level of students and limited learning time; and (4) Teachers lack IT skills.

Based on the research findings, the authors provide suggestions, namely 1) for students, it is necessary to improve critical thinking skills by increasing HOTS questions; 2) for teachers,

it is necessary to increase creativity and be more innovative and improve their IT skills; 3) for schools, it is necessary to motivate teachers and students always to carry out a learning process that leads to critical thinking skills, as well as to facilitate teachers and students further to support students' critical thinking abilities; and 4) for future researchers, it is better if the researcher examines how to improve student's critical thinking skills according to the influencing factors.

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