

Students' Critical Thinking Skills at SMAN 7 Tebo

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Abstract – Critical thinking skills are one of the most important skills in the 21st century. These students' critical thinking skills need to be known so that the teacher can respond to this by considering the use of learning methods and models that will be used in the classroom. This type of research is descriptive. The population in this study were all students of class X MIPA at SMAN 7 Tebo in the academic year 2020/2021, while for the research sample the sampling technique used was simple random sampling. The research instrument used a validated critical thinking skills questionnaire with validation criteria. The data collection technique in this study was to distribute questionnaires filled out by students. From the research results, it is known that the critical thinking skills of class X MIPA students at SMAN 7 Tebo are still low. This happens because of the lack of students in practicing critical thinking skills, the teacher's focus is only on memorizing knowledge, and the teacher does not apply learning critical thinking skills in the classroom.

Keywords – Critical Thinking Skills.

I. INTRODUCTION

The 21st century is a century that has had rapid changes in various fields, one of which is the field of education. This 21st century has its own challenges in the world of education, such as graduates must have skills that are able to compete with the global and digital world. The skills that must be possessed to be able to pass these challenges are 4C skills. These 4C skills include *Critical Thinking, Communication, Collaboration, Creativity* (Skills. 2009; King, FJ, Goodson, L., MS and F. 2010; Redhana. 2013).

One of the skills that must be possessed to overcome the challenges of the 21st century is critical thinking skills. Critical thinking skills are an effort to think with reason and reflective that prioritizes decision making based on something that must be believed and can be done. According to Zubaidah (2016), during this technological era, there is a lot of information flow, students must have the skills to sort out sources and get relevant information, get quality sources, and carry out assessments of various sources of objectivity, reliability, and up-to-date aspects.

Critical thinking is reasonable and reflective thinking that is centered on solving problems that must be believed and what must be done (Paul and Elder 2006). Critical thinking skills are an effort that makes students get new information through problem solving and collaboration. Critical thinking skills prioritize the learning process itself rather than just gaining knowledge. Critical thinking skills relate to activities, such as analysis, synthesis, making considerations, creating, and applying new knowledge in the real world (Walker, 2005).

According to Ennis, there are 5 critical thinking indicators with 9 sub indicators. The indicators of critical thinking are as follows:
a). Provide a simple explanation: focus on questions, analyze arguments, ask and answer questions about an explanation or challenge, b) build basic skills: the source must be considered for its credibility, c) conclude: decisions are made and the results are

considered, d) provide further explanation: terms identified and defined definitions as well as identifying assumptions, e) managing strategies and tactics: deciding on an action and being able to interact with others (Noprianda, Noor, and Zulfiani, 2019).

The characteristics of people who think critically: (a) have the ability to think realistically in dealing with problem solving, (b) have the ability to make correct decisions in problem solving, (c) have the ability to analyze, organize, and search for information based on existing facts, (d) have the ability to draw conclusions on problem solving and formulate opinions appropriately and systematically (Sulistiani and Masrukhan, 2016).

According to Phillips (2004) critical thinking skills are one of the main goals in education. Meanwhile, Glaser (Sulistiani, 2016) states that it is very important to be able to master critical thinking skills so that students are better able to formulate an opinion, check the credibility of sources, or make decisions. In the face of an increasingly complex changing era situation, students must be required to be skilled and creative thinkers, make agents of renewal, provide solutions to solve problems based on those derived from critical and creative thinking.

In training critical thinking skills, of course, the teacher needs to know the thinking skills of each student. By knowing the initial skills possessed, the teacher will know the decision in choosing the appropriate learning methods and techniques for students. Therefore, knowing students' critical thinking skills is important for teachers. Based on the description of the problem, the authors conducted a study on the Critical Thinking Skills of Students at SMAN 7 Tebo.

II. RESEARCH METHODS

The type of research is **descriptive**. The population in the study were all students of class X MIPA at SMAN 7 Tebo in the academic year 2020/2021, while for the research sample the sampling technique was used, namely simple random sampling, so that each class had the same opportunity as 10 people in each population class.

The research instrument used a validated critical thinking skills questionnaire with valid validity criteria. The data collection technique in this study was to distribute questionnaires filled out by students.

III. RESULTS AND DISCUSSION

This study aims to determine the critical thinking skills of students at SMAN 7 Tebo. This questionnaire was filled in by 30 students with a total of 270 answer choices. To measure students' critical thinking skills, a questionnaire containing 9 multiple choice questions was used which would be divided into 5 scores from lowest to highest. More details on the results of the observation questionnaire on critical thinking skills can be seen in Table 1.

Table 1. Questionnaire Results for Critical Thinking Skills for Class X MIPA SMAN 7 Tebo Students

Indicator	Sub Indicator	Number of Choice Answers				
		T1	T2	T3	T4	T5
Provides a simple explanation (<i>elementary clarification</i>)	Focuses Question	2	1	3	18	6
	Analyze the argument	1	2	4	7	16
	Answer an explanation or challenge.	0	4	6	12	8
Build basic skills(<i>basic support</i>)	Corresponds to the source	4	1	7	11	7
Concluded(<i>inference</i>)	Make a decision and consider the result	1	2	1	7	19
Provide further explanation	Identify term and consider the definitions	2	1	6	5	16
	Identifying assumptions	5	3	2	4	16
	Deciding on an action	1	2	5	1	21

Setting strategies and tactics	Interacting with other people	3	1	2	2	22
Total		7%	6%	13%	25%	49%

Based on the data above, the results obtained are students with the highest score (Grade 1 or T1) is 7%, Grade 2 (T2) score is 6%, Grade 3 (T3) score is 13%, Grade 4 (T4) score is 25%, and Grade 5 (T5) score is 49%. This data is the result of critical thinking skills, which indicates that the level of critical thinking skills of students is still low, since more students have the lowest grades.

The use of questions with a low level of thinking also affects the thinking skills of students. This is because students are not used to developing their thinking skills. If the use of questions with a high level of thinking will certainly familiarize students with developing their thinking skills. One of the things that can improve critical thinking skills is to provide problems to solve. With this, students can solve problems based on their thinking framework systematically and if done regularly, an increase in critical thinking skills will occur.

According to Nugraha (2017) students with low critical thinking skills are located in a level of thinking that is not reflected (unreflective thinking) to thinking at first (beginning thinking) because of lack of knowledge, inconsistency, and ignorance of the core of the question. According to Yustyan (2015), educational researchers argue that thinking skills are actually easy to implement, it's just that teachers in school are used to focusing on memorizing knowledge without getting used to and teaching critical thinking skills. This of course triggers the low critical thinking skills of students.

At the time of the research it was found that the teacher used monotonous learning methods such as one-way learning from teachers to learners and interspersed with questions. The use of a monotonous learning model also affects the learning motivation of students. According to Nugraha (2017) students with low motivation tend to have low critical thinking skills. These students will have less interest in problems that require problem solving, are not interested in challenges and have no demands from parents regarding the learning outcomes they achieve.

The low critical thinking skills are due to the teachers not accustomed to directing students to think critically, because these thinking skills can be learned. This is similar to the opinion of Zohar (1994) that critical thinking skills will not progress properly without exercise to develop so that they can develop during the learning process. In addition, the lack of practice is also a factor in low critical thinking skills. According to (Redhana, 2013) these critical thinking skills can be mastered by regular learning and training in order to develop mastery in a better direction. Therefore, students must face challenges in order to develop critical thinking skills.

Critical thinking skills have clear indicators that are easy for teachers to apply in the learning process. However, the fact is that almost all indicators of critical thinking are not owned by students in schools. In cases where students are asked questions, very few dare to answer questions so that students never provide solutions to the problems found. This is a factor that the critical analysis power of students is low (Adnyana, 2012).

IV. CONCLUSION

From the results of this study it is known that the critical thinking skills of class X Mathematics and Natural Sciences students at SMAN 7 Tebo are still low. This occurs because of the lack of students in practicing critical thinking skills, the focus of the teacher is only on memorizing knowledge, and the teacher does not apply critical thinking skills learning in the classroom.

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