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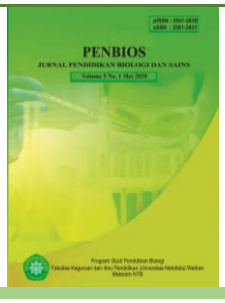

Research Article

Critical Thinking Ability of Students of SMAN 2 Padang

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ABSTRACT

Education has now entered the 21st Century education. In order to survive in the 21st century, various skills are needed, including the 4C skills which consist of critical thinking and problem-solving skills, creativity and innovation, collaboration, and communication. Critical thinking ability is one of the 21st Century Skills that must be possessed by students. The purpose of this study was to determine the critical thinking skills of students at SMAN 2 Padang. The type of research used is descriptive. The population in this study consisted of all class X students of SMAN 2 Padang for the 2021/2022 academic year. The sample in this study was 50 students of class X at SMAN 2 Padang. The technique of determining this sample is done by simple random sampling technique. The instrument used is a validated critical thinking skills questionnaire. Data analysis used descriptive analysis. From the research results obtained in this study, it shows that the critical thinking skills of class X students of SMAN 2 Padang are classified as very low. This is shown from the acquisition of the percentage of critical thinking skills score 5 (very high) which is 9.77%, score 4 (high) is 6.44%, score 3 (enough) is 16.44%, score 2 (low) is 32, 22%, and a score of 1 (very low) which is 35.11%.

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INTRODUCTION

Education is a very basic need that must be owned by every individual, therefore education will never be separated from the existence of a learning process. Education is currently experiencing developments in accordance with the times and has entered the 21st Century education. According to Redhana (2019), 21st Century skills are skills that must be owned by every individual to be able to face the challenges of 21st Century life at this time. In the 21st Century skills, there are several skills that must be possessed by students, namely 4C skills which consist of critical thinking skills and problem-solving, creativity

and innovation, collaboration, and communication. To be able to master this skill, a teacher must be able to reform the learning process.

In this regard, the skills demanded in the 21st Century skills are critical thinking and problem-solving skills. According to Septikasari (2018), these critical thinking skills include the ability to access, analyze, and synthesize information that can be learned, trained, and mastered. In addition, problem-solving skills include identification and the ability to be able to search, select, evaluate, organize, and consider the information to be used. To find information in it, students must be good at choosing relevant sources, as well as finding highly qualified sources. According to Hasanah (2018), having the ability to think critically can make it easier for students to consider the opinions of other people and be able to express their own opinions.

In line with the development of the era, the Minister of Education, Culture, Research, and Technology, namely Mr. Nadiem Makarin, has issued a new curriculum. On February 1, 2021, the Minister of Education, Culture, Research, and Technology, namely Mr. Nadiem Makarin, issued the Mobilizing School Curriculum. The Mobilizing School Curriculum is an independent learning program that starts in the 2021/2022 Academic Year and is implemented by 2,500 schools spread across 34 provinces and 111 districts/cities of Rahayu (2021). One of the cities that has implemented this driving school curriculum is the city of Padang. In the city of Padang, there are 5 schools that have implemented this driving school curriculum, one of which is SMAN 2 Padang.

The Mobilization School curriculum and the previous curriculum, namely the 2013 Curriculum which was implemented at SMAN 2 Padang, have differences. The difference can be seen from the results of observations through interview sheets with biology teachers at SMAN 2 Padang. Based on the results of interviews with the driving school curriculum, the emphasis is on independent learning for students. Students are expected to learn independently according to their abilities, interests, and talents of students. The Mobilization School curriculum applies the Pancasila learning profile system which contains 6 Pancasila profiles, namely 1) Faith, piety to God Almighty, and noble character, 2) Global diversity, 3) Mutual cooperation, 4) Independent, 5) Critical reasoning, 6) Creative.

One of the Pancasila learning profiles emphasizes students be able to reason critically or think critically. According to Oktaviani (2018), explaining that this critical thinking ability is a very important ability for students to have. A teacher has a duty to be able to improve quality, and creativity, and develop all the potential that exists in students.
The ability to think critically has several indicators that can be achieved. According to Ennis (1995), critical thinking skills have 5 indicators and consist of 9 sub-indicators. Critical thinking indicators are as follows. a). provide simple explanations (elementary clarification): focus on questions, analyze arguments, ask and answer questions about explanations or challenges, b). build basic skills (basic support): sources must be considered credible, c). conclude (inference): decisions are made and the results can be considered, d) make further clarifications (advanced clarification): define terms and consider definitions, identify assumptions, e) strategies and tactics (strategies and tactics): determine action and be able to interact with people other.

To be able to train students' critical thinking skills, teachers need to know students' critical thinking abilities first by measuring students' critical thinking abilities. After knowing students' initial critical thinking abilities, the teacher will then determine and decide what learning methods and models are appropriate for students to be able to improve students critical thinking skills. Based on these problems, researchers conducted research on students' critical thinking skills at SMAN 2 Padang.

METHOD

This type of research is descriptive. The population in this study were all class X students of SMAN 2 Padang for the 2021/2022 academic year. The sample in this study was 50 students of class X at SMAN 2 Padang. The technique of determining this sample is done by simple random sampling technique.

The instrument used in this study was a validated critical thinking ability questionnaire. The data collection technique in this study was by distributing critical thinking ability questionnaires and then filling them out to students. The data analysis technique in this study was descriptive analysis which was carried out by observing and analyzing students' critical thinking skills.

RESULTS AND DISCUSSION

To be able to determine students' critical thinking skills at SMAN 2 Padang, it is necessary to measure students' critical thinking abilities using a critical thinking ability questionnaire. This questionnaire was filled out by 50 students. This critical thinking ability questionnaire consists of 9 questions containing 5 indicators and 9 sub-indicators consisting of multiple choice questions which are divided into 5 scores from lowest to highest. For more details, the results of the student's critical thinking ability questionnaire can be seen in Table 1.

Table 1. The results of the student's critical thinking skills questionnaire

No	Aspects of critical thinking	Total students				
		Score1 (Very low)	Score 2 (Low)	Score 3 (sufficient h)	Score 4 (High)	Score 5 (Very high)
1	Focusing questions	12	26	3	4	5
2	Analyze arguments	12	14	11	6	7
3	Responding to an explanation or a challenge	25	8	7	6	4
4	Adjusting to sources or references	18	18	3	6	5
5	Make decisions and weigh the results	14	25	7	2	2
6	Identify terms and consider definitions	23	10	10	3	4
7	Identify assumptions	22	14	9	0	5
8	Decide on an action	16	21	7	2	4
9	Interact with others	16	9	17	0	8
Total		**158**	**145**	**74**	**29**	**44**
Percentage (%)		**35,11%**	**32,22%**	**16,44%**	**6,44%**	**9,77%**

The results of the questionnaire conducted by class X students of SMAN Padang show that students who have a score of 5 (very high) are 9.77%, a score of 4 (high) is 6.44%, a score of 3 (sufficient) is 16.44%, score 2 (low) is 32.22%, and score 1 (very low) is 35.11%. It can be seen from the data from the questionnaire results that the level of

students' critical thinking skills is still very low because most students have very low scores, namely 34.11%.

It can be seen from the results of the questionnaire that has been filled in by students that students' critical thinking skills are still low. This is because students never practice their critical thinking skills. In addition, the role of the teacher is also very necessary to be able to train students' critical thinking skills. According to Nuryanti (2018), a teacher must be more creative in designing and developing learning tools used during the learning process, to improve students' critical thinking skills. In addition, during the learning process, the teacher must involve students so that they can stimulate students' critical thinking skills through active learning models.

The low critical thinking skills of these students have a very bad effect on students. Because of this, it must be immediately trained and developed to be able to improve student's critical thinking skills. According to Miftahussa'adiah (2020), students' critical thinking skills need to be developed. A student who has good critical thinking skills, not only accepts the information that has been obtained but with this information students can solve an existing problem. Giving an assessment that has a C4-C6 cognitive level can train students' critical thinking skills. According to Daniati (2018), one of the factors causing the low critical thinking skills of students is that the teacher gives questions with a low cognitive level so that students' critical thinking skills are not trained and resulting in students only answering questions according to their memorization. The questions used also do not contain indicators of critical thinking skills.

At the time of the research, it was seen that the teacher used direct learning methods and one-way learning, such as from teacher to student, and interspersed with questions. Using learning methods like this can also affect the low learning motivation of students. According to Nugraha (2017), who explains that when students have low learning motivation, this tends to make students critical thinking skills low. Students will lack interest in the problem given to be solved, besides that students are also not interested in challenges during the learning process.

Each student has a different level of critical thinking ability. Students who have low critical thinking skills need the training to be able to improve their critical thinking skills. Nuraida (2019) explains that students' thinking skills do not arise by chance as a result of learning, but students need students' critical thinking skills to be able to improve student's critical thinking skills during the learning process in class. A teacher must have a strategy that can train students' critical thinking skills, namely 1) create conditions that can challenge students during the learning process, 2) interact with students during the learning process in class, and 3) train students to be able to write or create writing.

CONCLUSION

The research results obtained in this study show that students who have a score of 5 (very high) are 9.77%, a score of 4 (high) is 6.44%, a score of 3 (enough) is 16.44%, a score of 2 (low) that is 32.22%, and a score of 1 (very low) that is 35.11%. It can be seen from the data from the results of filling out the questionnaire that the level of students' critical thinking skills is still very low. It can be seen that most students have very low scores, namely 34.11%. The low critical thinking skills students need to be given critical thinking skills training, to improve students' critical thinking skills. To be able to train

students' critical thinking skills, teachers can use learning models that can improve students' critical thinking skills.

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