

ANALYSIS OF IMPLEMENTING AUTHENTIC ASSESSMENT OF CURRICULUM 2013 BY HIGH SCHOOL BIOLOGY TEACHERS

Novia Elyza Melinda^{1*}, Indayana Febriani Tanjung²

¹ Program studi Pendidikan Biologi, FITK Universitas Islam Negeri Sumatera Utara, JL. William Iskandar Ps. V, Kenangan Baru, Kec Percut Sei Tuan. Kabupaten Deli Serdang, Sumatera Utara 20371

*Corresponding author: noviaelyzamelinda@gmail.com

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ABSTRACT

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The purpose of this study is to describe how the application of authentic assessment conducted by high school/vocational biology teachers in Langkat Regency. This study used a qualitative approach with the type of direct survey research. The sample used in this study was 15 samples of Biology Teachers From 4 different high schools in Langkat Regency including SMA Negeri 1 Stabat, SMA Negeri 1 Tanjung Pura, SMAS Preparation Stabat and SMAS Tunas Bangsa. Authentic assessment includes several aspects, namely behavior, knowledge and skills or talents. But in reality, from the results of questionnaires, interviews, and observations, it was found that the results of implementing authentic assessment had not been fully carried out by some biology teachers. Obstacles experienced by biology teachers in authentic assessment include the lack of training for biology teachers, delivery of material during training makes biology teachers less able to understand authentic assessment and explain all aspects contained in the 2013 curriculum, the number of students who must be assessed individually by biology teachers, limited time to conduct assessments, and the facilities and infrastructure available at schools have not been used optimally. The large number of students who are assessed individually requires a lot of time to carry out the assessment. Therefore, teachers feel confused in dividing their time in advance with infrastructure that cannot be utilized optimally.

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INTRODUCTION

The definition of assessment refers to a method that can be used to carry out quality control in the realm of education. Assessment also has a very important role in realizing a success contained in student learning operations in the classroom by evaluating learning. In learning, the teacher uses evaluation to be able to see the level of student ability. with this evaluation aims to determine the extent to which the results of student development in accordance with the objectives in the learning process. (Arifin, 2012). Assessment at the end of the lesson takes place both independently and in groups. The goal is that students can explore the material being studied. The structure of the assessment is carried out in accordance with the applicable curriculum at the school. Talking about authentic assessment is something that students want to do and assess various existing instruments on basic competencies. Authentic assessment is expected to be a benchmark for students' abilities in certain basic competencies. Authentic assessment consisting of comfort and skill competency assessment (Meliana et al, 2020).

Authentic assessment is an assessment description with the aim of requiring students to show behavior, utilize the knowledge and competencies or talents contained in learning in carrying out obligations in real conditions. Authentic assessment requires authentic learning as well. Authentic learning certainly requires students to collect information by means of a scientific approach to these students, understand various phenomena or symptoms and the relationship between one another and connect what they learn with the real world outside school. In this regard, an assessment based on scientific literacy is required (Word 2007). In the Program for International Student Assessment (PISA) (2010), it is not only to determine the level of understanding of students' scientific knowledge in understanding learning, but also understanding various scientific processes, as well as their ability to apply scientific knowledge and processes in direct situations faced by students. both individually, in groups/communities, as well as citizens of the world.

Muslich explained that authentic assessment is a part that should not be separated from the learning process, showing contextual learning using various methods or measures and being global in nature and involving various domains of competence, knowledge, skills, and attitudes of students (Aiman, 2016). Authentic assessment is a student activity in order to emphasize the results of the assessment

instrument which is aimed at the demands of competence on students (Kunandar,2014).

Fadlillah (2014) "The 2013 curriculum emphasizes the improvement and equality of students' abilities from various aspects contained in authentic assessments. In addition, the equality of competences which were initially only subjects turned into subjects that were developed in competence." Sa'ud (2008) means that authentic assessment must be carried out in an integrated manner in learning and must also be carried out continuously during the assessment activity.

Authentic consists of 3 aspects including: 1) Authentic aspects of the instruments used, using various instruments that are adapted to the assessments or competencies in the curriculum, 2) Authentic from the measured aspects, assessing aspects of comprehensive learning outcomes including attitudes, skills and competencies. and knowledge, 3) Authentic from the aspect of student conditions, assessing input (student initial conditions), student performance and activities in the teaching and learning process), and output (results of controlling competence, skills, and knowledge of students after participating in the teaching and learning process).

In the curriculum, one of the materials discusses about authentic assessment. In the 2013 curriculum, authentic assessment is used as the best assessment in providing an evaluation of student learning outcomes in the learning process. Authentic assessment is the main approach used to determine the progress of student learning by teachers in the learning process which is directly explained by Permendikbud Number 104 of 2014 article 2 paragraph 2 that Authentic Assessment as referred to in paragraph (1) is the main approach in the Assessment of Learning Outcomes by Educators.

In the learning process, authentic assessment is needed which aims to see whether the assessment can determine students' abilities and competencies. Abidin (2012) stated why authentic assessment is necessary because: (1) In its use, authentic assessment allows direct measurement of learning performance as an indicator of the achievement of the competencies taught; (2) authentic assessment provides opportunities for students to display their learning outcomes, performance, and assessments that are considered quite good. Authentic assessment can also be applied in the learning process and become one of a series of activities that are applied in the learning process. Character & Comprehension, (2012)

The opinion expressed by Majid (2015) regarding the function of authentic assessment

which describes the level of competence that can be understood by students, knowing the obstacles experienced by students as well as weaknesses and strengths so that teachers can understand more deeply about students.

Ruslan, et al (2016) stated that the problems experienced by teachers were caused by too many indexes and competence that must be achieved in the assessment. Assessment also took a lot of time to observe one by one the aspects of the assessment instrument, causing the learning process in the classroom to be insufficient in one day. Biology teachers' understanding of authentic assessment is an obstacle in providing authentic assessments for each student. It is hoped that later this assessment can provide good results which can be a good improvement in the quality of biology teachers in schools.

The reality in the field after many observations have been made, there were still some teachers who had not been able to make authentic assessment instruments even though schools have implemented the 2013 curriculum. This includes part of authentic assessment, namely behavioral assessment which includes direct service, self-assessment, peer assessment, peer review, as well as journal assessments. While the competency assessment in the realm of knowledge includes several sections consisting of written assessments, oral assessments and assignments given by the teacher. As well as assessment of competency skills, among others, assessment of performance, projects, products and portfolios. The aspects described were the obstacles experienced by teachers in providing authentic assessments, the article was that teachers did not only apply all evaluations or assessments contained in authentic assessments if these aspects have not been met.

METHOD

This research was conducted in SMA/SMA in Langkat Regency with the criteria of the research subject being SMA/SMA in Langkat Regency who have implemented the 2013 Curriculum. This study used a qualitative approach with a direct survey method and used a questionnaire as a tool to collect information to be conducted. In this study, the direct survey method/summative research was used, where this research was conducted at the end of the learning process. Data collection techniques using triangulation techniques, then described according to the direct situation based on the results of the list of questions posed to the biology teacher.

The data collection technique used in this study was using an open questionnaire given to SMA/SMAS teachers in Langkat Regency. The questionnaire on the implementation of Authentic Assessment by biology teachers in schools consisted of four aspects consisting of 6 questions. As for the questionnaire, the problems experienced by Biology teachers in schools in implementing authentic assessments in class consist of 4 aspects with 10 questions. The distribution of this questionnaire was carried out directly to teachers who teach at SMA/SMAS Langkat Regency. So for a total of 16 questions. Results Based on the questionnaire distributed to high school/high school teachers in Langkat Regency, it was stated that the obstacles experienced by teachers when implementing this authentic assessment.

Data collection technique

In this study, data collection was carried out using triangulation techniques. Where, the important thing that must be considered was how to reduce it, meaning a collection of data obtained, then collected and recorded, and observed so that data that may not be required to be included can be deleted or omitted. And the last process of this technique is to draw conclusions from all the observed data. The purpose of this triangulation technique was to provide meaning, clarified the views of the research analysis carried out and the relationship between the main data and other data. The second objective was the percentage of data in the form of tables and their descriptions. And the last goal is drawing conclusions from the data studied so that later the data becomes accurate and guaranteed to be true.

Nasution (2015), stated that there were several ways that can be used to find the percentage of results, namely the sum of the frequencies (f) can be used as an alternative to the respondents' answers for each of the questionnaires given and the calculation of the percentage (%) of each answer obtained.

RESULTS AND DISCUSSION

Based on the results of the research conducted, the results obtained from a series of studies that have been made. The data obtained showed the percentage of the application of authentic assessment and the obstacles experienced by biology teachers in implementing authentic assessment in the classroom. Table 1 showed the data obtained and their descriptions.

Tabel 1 Table on the Questionnaire for Application of Authentic Assessment in schools.

Indicator	Question	Percentage (%)
Authentic Assessment implementation	Biology teacher has created an Authentic Assessment Instrument?	80
		20
	Does the assessment instrument that has been made by the biology teacher include:	100
	a. Attitude assessment	-
	b. Knowledge	90
		10
	c. Skills	100
		-
	Having difficulty in making assessment instruments	80
		20
Having trouble applying authentic assessment	70	
	30	

As for the obstacles experienced by biology teachers in applying authentically in the classroom, it can be seen in Table 2.

Table 2 obstacles experienced by Biology teachers in implementing authentic assessment in the classroom

Indicator	Question	Percentage(%)
1. Authentic Assessment Training	a. Biology teacher has attended authentic assessment training	90
		10
	b. Clarity of the material presented on authentic assessment	60
		40
2.Character and number of students in school	c. Effective time of material delivery	50
		50
	a. The experience experienced by biology teachers in providing character evaluations to students	70
		30
3.Authentic assessment based on time effectiveness	b. The number of students in the class is proportional	80
		20
	c.The quality used by biology teachers in providing assessments because of the large number of students in one class.	60
		40
4.Authentic assessment in terms of facilities and infrastructure	a. The ability to allocate student learning time set by the school	80
		20
	b. Less effective learning time for students controlled by biology teachers when conducting authentic assessments in class	60
		40
	a. The available school facilities and infrastructure are lacking when applying authentically to students and Lack of understanding of school facilities and infrastructure that supports authentic things	70
		30

The 2013 curriculum states that authentic assessment is one of the mandatory demands in the world of education. Biology teachers carried out authentic assessments at the time of learning, the aspects observed by biology teachers in carrying out authentic assessments include:

attitude/behavior assessment, expertise in understand the learning and competencies/talents mastered by students. The indicator of the achievement of each material in accordance with the syllabus is the most important thing for biology teachers in implementing authentic assessments in

the classroom. These indicators are then developed into several sub-questions that are needed in the preparation of an authentic assessment. And the final step in this assessment is a questionnaire or questions that are observed to become an assessment score on each indicator.

In the questionnaire submitted to teachers, in table 1 Problem 1. a, there were 80% of biology teachers who had made authentic assessment instruments and 20% of teachers who had not made authentic assessment instruments. The main reason biology teachers make assessment instruments was that they do not use this research in the classroom. Another reason was also found that they were more likely to carry out written assessments aimed at students so that this assessment was not widely applied in their schools and biology teachers were unable to make an appropriate time allocation plan according to the material given to students, so the teacher did not have enough time in conduct authentic assessments of their students. This is in accordance with research conducted by (Syaravina, et al, 2019) which states that with this authentic application, the teacher's time in explaining learners is reduced. teachers are still difficult to overcome these difficulties because of the time required to implement many activities, while the schedule of learning activities is often closed because there are schools either planned or unplanned.

In item 1.b, the researcher checked the suitability of the authentic assessment instruments that have been made by the biology teacher, in the assessment of attitudes/behavior and skills the teacher has included almost 90% of the authentic assessment instruments made, but there are 10% of teachers who also do not include an assessment. From the aspect of knowledge because according to them this assessment is included in the written assessment or exercises given by biology teachers to their students. This is in accordance with the results of research conducted by Haqiqi (2018) that the ability of educators to assess authentic tools obtained different results from each item presented, namely attitudes, knowledge and skills. Attitudes get results that answer as much as 65.62%, 88.75% knowledge and 87.5% on the skill aspect. The ability of educators in authentic assessment is obtained where the results obtained are 78.75%.

The inhibiting factor experienced by biology teachers was in making assessment instruments, in question 1.c it is known that 70% of biology teachers find it difficult when faced with making authentic assessment instruments while 30% of other biology teachers do not. Ningrum

(2017) stated that some state high school biology teachers in Binjai City experienced problems when assessing authenticity. Obstacles faced by biology teachers include difficulties in making instruments, difficulties in filling out the assessment format, difficulties in assessing attitudes objectively. In fact, when biology teachers can understand well about authentic assessments to carry out assessment instruments, biology teachers may not find it difficult to make and understand authentic assessments. In the previous question, it has also been discussed that in making a good and correct authentic assessment instrument it must contain several aspects, namely: aspects of student attitudes / behavior, aspects in terms of knowledge such as written tests, oral tests, and others). tests and assignments), skills aspects (performance, products, projects and portfolios). Where each aspect of this assessment has a different explanation and meaning in getting the final result. The number of aspects that are too many to be assessed is also an inhibiting factor or obstacle for biology teachers in conducting assessments so that teachers become overwhelmed and have difficulty in making authentic assessment instruments contained in the curriculum.

Then the number of biology teachers who experience problems in implementing the implementation of authentic assessments in the classroom, as stated in question 1.d Table 1, it can be seen that 80% of biology teachers in Langkat Regency experience difficulties when applying authentic assessments in class, while the other 20% do not. It can be interpreted that there are still some teachers who experience problems in implementing authentic assessment and are considered to add to the teacher's work in providing assessments, teachers consider written assessments to be sufficient. but in reality, authentic assessment is needed in the classroom.

Haqiqi (2018) also mentions from the results of his research that there are obstacles for educators in designing and implementing authentic assessments, given 5 pieces and related to interviews for implementing authentic assessments consisting of 91 questions.

Ruslan, et al. (2016) states "the problems experienced by teachers are caused by too many indexes and competencies that must be achieved in the assessment, the assessment also takes quite a lot of time to observe one by one the aspects of the assessment instrument, causing the learning process in the classroom to be insufficient in one day. Biology teachers' understanding of authentic assessment becomes an obstacle in providing authentic assessments for each student. It is

hoped that later this assessment can provide good results which can be a good improvement in the quality of biology teachers in schools.

Teachers were required to be more creative, not only limited to knowing the meaning of authentic assessment which is an additional factor in the application of authentic assessment to be imperfect, in the procedure for its application there are still teachers who still do not understand (Abdullah, 2016). not perfect because the lack of understanding by biology teachers is only limited to understanding authentic assessments, both in terms of procedures for using and implementing authentic assessments that biology teachers cannot master.

It can be seen in Table 1.2 Question 1.a, that 90% of biology teachers have attended training and 10% have never. Based on the results of the questionnaire, the reason other biology teachers did not attend the training was a random selection made by the education office, not comprehensively for teachers. This means that not all biology teachers at the school participate in authentic training which should be mandatory for every teacher. Another reason for biology teachers, this training should involve all teachers so that all can better understand and master authentic assessment.

Table 2 Question 1.b also shows that 60% of biology teachers who have attended authentic assessment training can clearly understand the material presented during the training. However, there are also 40% of biology teachers who cannot understand clearly when authentic assessment material is given. When the training was in progress, the material provided was not only about authentic assessments, there were also parts of other assessments, and the material provided covered the entire content of the assessment in accordance with the 2013 curriculum. Properly and correctly, making assessment sheets, how to fill out student report cards and others. The number of explanations makes the teacher unable to apply authentic assessment.

At the time of training, the time given to the teacher in understanding this training was felt to be less than optimal. At question point 1.b in table 2, overall there are some teachers who do not understand, meaning that 50% is considered by the biology teacher at the time of the training, there needs to be an addition so that the teacher can understand better and the rest consider this assessment sufficient. It should be at the time of the material provided during the training, authentic assessment is the most important thing that must be understood. In giving an assessment,

the teacher must get the results of the assessment that are assessed factually and fairly on each student. Therefore, it is necessary to give each guru sufficient time to implement an authentic assessment. Alawiyah (2015) explained that the focus of reference in the 2013 curriculum which has been improved is conducting training for teachers and education personnel as well as infrastructure. In this activity the teacher conducts training in stages in the use of appropriate steps in providing teachers with an understanding of authentic assessment.

Characteristics of students become an inhibiting factor in the application of authentic assessment. The behavior and nature of each student becomes an obstacle by the biology teacher in giving an assessment. According to the teacher, in the aspect of authentic assessment which includes the attitudes/character of students, the main difficulty is the teacher. The teacher must give assessments to students in terms of judging themselves, to their peers. This makes the teacher feel complicated in giving assessments to students quickly during learning and a reasonable number of students in each class. As stated by (Ayuningtyas, 2015) that the implementation of the authentic process involves a lot of time and administrative burdens for more and more teachers. Complicated assessment with value conversion.

In table 2, question 2.b, it can be seen that 30% of biology teachers in Langkat Regency have a large number of students in each school based on research conducted in each school and 20% of teachers who are said to be reasonable in each class. And based on question 2.c, it can be seen that the biology teacher is experiencing difficulties when assessing each student with different characters in each class. As stated (2015) that the implementation of the authentic process involves a lot of time and administrative burdens for more and more teachers. Complicated assessment with value conversion.

Table 2, in question 3.a, which can be seen in the percentage amount that the availability of time is insufficient in carrying out authentic assessments for students in class. Biology teachers consider the time for authentic assessment to be ineffective and divided by the time for each meeting by the teacher to carry out authentic assessments in class. Availability of time that has not yet reached the full range of authentic assessments in accordance with the 2013 curriculum. The Chairperson of the Teacher Discussion Forum (FSGI) in his statement, stated that 52 hours of operational time have been prepared to conduct authentic training which is

not appropriate in terms of preparing competent teachers for the implementation of the new curriculum. which is due to the very small amount of time allocation (Ahmad, 2014). Unfavorable readiness in terms of facilities and infrastructure in the school also has an influence on the application of authentic assessment. Inadequate facilities and infrastructure in each school cannot support this research, both in terms of the availability of books as learning tools, biology lab rooms, computers, chemistry and many more.

In the Biology Lab, the availability of materials and tools is a supporting factor for the implementation of an authentic assessment. If it is observed that biology practicum activities can cover all aspects, however, researchers observe that there are obstacles, namely the availability of complete tools and materials and lack of proper use. In some schools, such as SMA Negeri 1 Stabat, SMA Preparation stabat, SMAS Tunas Bangsa and SMA Negeri 1 Tanjung Pura, they have been managed and used properly and correctly.

The results of this study are supported by research conducted by Agustina (2018) which found that teachers had carried out authentic assessments during the learning process which included three aspects of assessment, namely attitudes, knowledge, and skills. However, in the assessment process there are still some obstacles from certain formats that must be made by teachers that are less than optimal in carrying out authentic. Many aspects must be assessed in the 2013 Curriculum, so teachers need a long time to conduct an assessment.

Similarly, research conducted by Baso (2019) found that information that (1) The implementation of authentic assessment in biology learning curriculum 2013 at SMA Negeri 9 Gowa had been carried out according to the demands of the 2013 curriculum. (2) Obstacles experienced by biology teachers in implementing Authentic assessment, namely the absorption of different students, too many assessment procedures, and a lot of time used make the burden on the teacher increase and the time for students to do assignments is also limited.

CONCLUSION

Based on the results of the research and discussion that have been described, there are 80% of biology teachers in Langkat Regency have difficulty when applying authentic assessment in class, while the other 20% have no difficulty. Authentic assessment research that includes several aspects both in terms of behavior/character, understanding, and talents/competencies controlled by students.

Training on authentic assessment is still considered ineffective and too much material on assessment makes it difficult for biology teachers to understand the concept of authentic assessment. The various forms of assessment that must be made and filled out by each teacher with the less effective allocation of time that the teacher has and the large number of students in each class and different characters make the teacher feel less able to apply authentic assessment in the according to the rules in the curriculum 2013.

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