Analysis Implementation Level of Authentic Assessment of Physics Learning Curriculum 2013 Pekanbaru City State High School

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Abstract:The objective of this study is to describe the implementation of autenthic assessment in physics learning class X SMA in Pekanbaru. The study was conducted from May up to June 2017. Quantitative approach used in this survey research. The subjects of the study were 7 teachers who taught physics class X at SMAN 1 Pekanbaru, SMAN 2 Pekanbaru, SMAN 8 Pekanbaru, SMAN Plus Provinsi Riau and SMA BabussalamPekanbaru. The instrument used questionnaires implementation of autenthic assessment. Data analysis technique was descriptive analysis. The result showed that the percentage of autenthic assessment in three aspects such as affective aspect obtained percentage of implementation 79.69%, cognitive aspect obtained 75.51% and psikomotor assessment aspect obtained percentage of implementation 76.98%. Three aspects of the research (affective, cognitive and psikomotor) are included in good level. It can be concluded that authentic assessment implementation based on kurikulum 2013 class X SMA in Pekanbaru in good level with percentage 78.71%.

Keywords: Learning Instruments, Experiential Learning Models, Cubes and Beams

1. Introduction

The phenomenon of the era of globalization causes Education to be a very fundamental thing for life. Hutapea (2014) states that education in the era of globalization is required to produce quality human resources. A good education is formed from the pattern and system of education and can be realized from a curriculum system that is in line with the demands of the expected competency needs of students. There are several evaluations in curriculum improvement including design, context, needs, results, impact, implementation, and evaluation of the curriculum.

Research conducted by Slamet (2014) explained that Indonesia does not need to worry in the era of globalization provided that the level of preparation to face the era is adequate and quality. One of the efforts made by the government to produce adequate and quality human resources is by developing curriculum every five years. 2013 curriculum is one form of curriculum development that is more focused on the use of authentic assessments in the learning process and simultaneously starts to apply to all schools throughout Indonesia in the 2014/2015 school year.

Research on authentic 2013 curriculum-based assessments conducted by Ummu (2015) shows that authentic assessments have not been fully planned to the maximum in schools, because

there is no specific training in making assessment instruments such as worksheets, assessment rubrics and so on. In the system of authentic assessment implementation, it is also not completely using instruments that are in accordance with the authentic assessment procedures expected. The obstacle experienced is the lack of understanding of the teacher about the process and the instruments used in authentic assessment.

Another research conducted by Kustijono (2014) regarding authentic assessment brings problems for educators in the assessment and learning process, there are still very many educators feel and lack understanding and are ready in an authentic assessment format. The study also mentions that authentic assessment of physics subjects requires a lot of time from the teacher in filling the instruments both in terms of skills, knowledge, and attitudes. The solution to make it easier in an authentic assessment is that the teacher must be able to memorize and get to know all students who are assessed so that it can facilitate the provision of value to students.

The level of implementation of authentic assessments has been studied by Mucthar (2015) using interview instruments and document analysis. In the same year, research by Fajar (2015) used interview and questionnaire instruments. In the following year, the research conducted by Setiawati (2016) used an analysis of documents, questionnaires and interviews. The instruments used have their strengths and weaknesses, such as the interview instrument can explain the reasons and answers in detail but are less able to be used in the large number of respondents as well as document analysis, whereas in 2016 the questionnaire consists of designing, implementing dialogical learning and educating , maximizing the use of learning technology and evaluating the learning outcomes used. Based on the results of the research that has been published above, then in this study several instruments will be developed that can adjust the conditions and conditions in stating the Implementation Level of authentic assessment on physics learning in the city of Pekanbaru, so that an assessment instrument is needed regarding the 2013 curriculum-based authentic assessment (Zulirfan et al., 2018).

The percentage of compliance with authentic assessments in various schools shows different values. Research on the implementation of authentic assessments by Yuni (2015) at SMPN 4 Kalasan has a percentage of achievement level of 86.25% with very good criteria. Different values with achievement levels of 79.16% are quite good categories conducted by Ela (2014) on economic lessons in SMA Negeri 2 NgalikSleman, while in Khafidzah's research (2016) in MA in Sleman district explained that 50% of teachers have implemented assessment authentic well in the learning process. Assessment Learning outcomes are very important in the teaching and learning process, the implementation of authentic assessment is closely related to the achievement of graduate competencies that have been applied in the 2013 curriculum. In addition, in addition to developing instruments regarding the level of Authentic assessment, this study also reviews the percentage of Authentic assessment based on the 2013 curriculum at Class X Physics subjects Pekanbaru City High School based on the instruments that have been developed.

2. Methodology

The type of research conducted is survey research, namely research that collects information from a sample by asking through a questionnaire to describe various aspects of the population clearly and systematically (Boediono, 2011). The research subjects were all physics subjects in class X MIA at SMAN 1 Pekanbaru, SMAN 2 Pekanbaru, SMAN 8 Pekanbaru, SMAN Plus Riau Province and SMA BabussalamPekanbaru. The total number of research subjects was 7

teachers, the perception of students was used as confirmation of the teacher's statement regarding the implementation of authentic assessment on physics learning.

The data used in this study is primary data (Suharsimi, 2010). Primary data were obtained through questionnaires on the level of 2013 curriculum-based authentic assessment on class X physics subjects that had been developed based on the 2013 curriculum curriculum references that had been modified to produce a standard instrument, which could be used to collect data and data collected no longer validated . A questionnaire statement consists of a closed questionnaire item and an open questionnaire item. The results of closed questionnaires are used for the assessment of feasibility analysis, an open questionnaire item is used to complete the data in a closed questionnaire.

Data analysis used is descriptive analysis (Hasan, 2004) is used to describe the level of 2013 curriculum-based authentic assessment on class X physics subjects. Measurement scale for authentic assessment using a Likert scale. Questionnaire scores obtained from each sample from each SMA will then be added to determine the percentage of authentic assessment.

3. Result and Discussion

After conducting research on the level of 2013 curriculum-based autopsy assessment on physics learning in class X SMA in Pekanbaru city for each type of assessment (attitudes, knowledge, and skills) obtained results in each aspect of assessment. Percentages and categories of authentic assessment based on questionnaires for authentic assessment of research subjects are presented in Table 1.

Table 1. Implementation of authentic assessments in each aspect of assessment

No.	Indicator	Attitude Assessment Percentage (%)	category	Assessment Knowledge Percentage (%)	category	Assessment Of Skill Percentage (%)	category
1.	Assessment Technique	82.14	Very Good	83.04	Very Good	74.40	Good
2.	Assessment Steps	79.29	Good	79.29	Good	79.29	Good
3.	Constraints and Effortsof assessment	76.79	Good	73.21	Good	73.21	Good

Based on Table 1, it can be seen that the indicators of the assessment of aspects of attitude assessment and knowledge assessment have been carried out very well with the percentage of 82.14% and 83.04% respectively, while the assessment of skills gained 74.40% included in the well-implemented category. All aspects of assessment (attitudes, knowledge and skills) fall into the category of well implemented on indicators of assessment measures and constraints of authentic assessment with percentages of implementation varying in the range of 73.21% - 79.29%.Students' perceptions of the implementation of the 2013 curriculum-based authentic assessment on physics subjects are presented in Table 2.

Table 2. Implementation of authentic assessment based on students' perceptions

No.	Indicator	Attitude Assessment		Assessment Knowledge		Assessment Of Skill	
-----	-----------	Percentage (%)	category	Percentage (%)	Category	category	Percentage (%)
1.	Assessment Technique	71.64	Good	77.78	Good	76.25	Good
2.	Assessment Steps	74.14	Good	74.14	Good	74.14	Good
3.	Constraints and Effortsof assessment	76.61	Good	75.54	Good	77.02	Good

Based on Table 2 it can be noted that all assessment indicators consisting of assessment techniques, assessment measures and constraints and efforts to overcome assessment constraints are in the well implemented category with a range of implementation percentage between 71.64% to 77.78%.

Based on the data obtained from the questionnaire results obtained that the percentage of authentic assessment of each aspect and indicator on the student questionnaire and students' perception questionnaire varied. Percentage of implementation and comparison between teacher questionnaires and students' perception questionnaires on each aspect of assessment for more details can be seen in Figure.
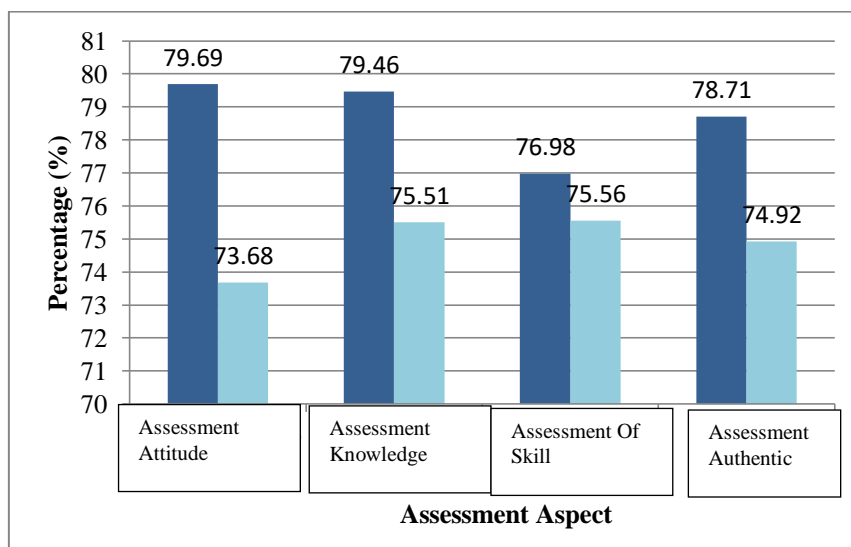

Figure 1 Percentage of authentic assessment

In Figure 1, it can be seen the percentage of implementation of each aspect of authentic assessment on the teacher questionnaire and the perception questionnaire of students varies from 73.68 to 79.69%. The biggest difference is in the aspect of attitude assessment with a difference of 6.01%. While the aspect of skill assessment gets the smallest difference with a value of 1.42%. Although there is a difference between the teacher questionnaire and the students' perception questionnaire, all aspects of the assessment are still classified as well-implemented criteria

4. Conclusion

Based on the research that has been done to obtain the level of authentic assessment of the physics subjects in class X in high schools throughout the city of Pekanbaru, the assessment of attitudes, knowledge and skills was carried out well so that it was concluded that the 2013 curriculum-based authentic assessment in class X physics subjects the city of Pekanbaru has been done well.

In connection with the above conclusions, the authors recommend that teachers further improve the implementation of authentic integrated assessment in the physics learning process to be able to describe the overall competencies of students

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