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# An analysis of the implementation 2013 curriculum of the learning biology in senior high school at pesisir selatan

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**Abstract.** The 2013 Curriculum requires a balance between the attitudes, skills and knowledge competencies for students. To realize it the teacher is responsible for the implementation and success of the biology learning process in the 2013 curriculum. This study aims to describe the implementation of the biology learning process in the 2013 Curriculum in Senior High School at Pesisir Selatan District. This is a descriptive research. The population and samples of this study are all teachers who teach biology and have implemented the 2013 curriculum in the implementation of the learning process in Pesisir Selatan District Senior High School, which was held in July 2018. Data collection uses a questionnaire instrument consisting of process standards, assessment standards and the impact of the 2013 curriculum for learners and teachers in schools. Technical data analysis is done by using percentage. Based on the results of data analysis and discussion that has been done, the results showed that, on the aspect of planning implemented by teachers in obtaining criteria either with percentage of 72%, on the aspects of learning implementation obtained very good criteria with 83% percentage, and on the aspect of assessment criteria quite well with a 61% percentage.

## 1. Introduction

The 2013 curriculum has four elements of change from KTSP to Curriculum 2013, namely the Content Standards, Process Standards, Assessment Standards and Graduates' Competency Standards. In this study, the authors put more emphasis on process standards and assessment standards. Vusparatih[8], states that changes in the 2013 curriculum learning process are that students are not told but find out, while the assessment process is not only based on *output* but becomes process-based and-based *output*, better known as authentic assessment.

According to Kunandar[2], authentic assessment is the activity of assessing students who emphasize what should be assessed, both the process and the results with various assessment instruments adapted to the demands of competencies in Core Competencies (KI) and Basic Competencies (KD). Based on this, the learning and assessment process requires learning that is oriented towards students.

The teacher is one of the education staff, responsible for the implementation and success of the learning process. Mulyasa[3] said that the teacher is the most decisive component in the education system as a whole, which must receive central, first and foremost attention. Teachers should have the competence to implement the 2013 curriculum in the learning process in order to achieve educational goals[7]. The success of the 2013 curriculum was adjusted to the creativity and activities of teachers in realizing and developing the 2013 curriculum.



The application of the 2013 curriculum began with learning planning, learning processes and evaluation of learning. The standard learning process is a minimum criterion about the implementation of learning in study programs to obtain graduate learning outcomes. Process standards include planning the learning process and carrying out the learning process. Learning process in accordance with Minister of Education and Culture Number 22 Year 2016 In accordance with the 2013 curriculum, teachers are required to be able to prepare learning well.

Based on the results of observations by the authors in January 2018 in 2 Senior High Schools namely Senior High School 1 Tarusan and Senior High School 2 Painan, found some differences. In High School 1 Tarusan, the 2013 Curriculum was only applied to class X, while for High School 2 Painan, it had been held for class X XI. The general implementation of the biology learning process in Senior High Schools in Pesisir Selatan District still has weaknesses. its implementation are related to standard processes and assessment standards. Teachers have not fully understood the contextual approach to the learning model used in the 2013 curriculum. Learning media, facilities and infrastructure support for practice is also still limited so that the implementation of the learning process has not yet proceeded as expected

In addition, in the implementation of the learning process the teacher has not fully understood the contextual approach to the learning model used in the 2013 curriculum. Ministry of Education and Culture[5] states that contextual learning with scientific methods (discovery/inquiry learning), project-based learning and problem-based learning..

The standard learning process is a minimum criterion regarding the implementation of learning in study programs to obtain graduate learning outcomes. Process standards include planning the learning process and implementing the learning process. The learning process according to the Minister of Education and Culture Number 22 Year 2016 in accordance with the 2013 curriculum, teachers are required to be able to prepare learning well. What needs to prepared the teacher before the learning process includes making a learning process plan and syllabus that contains character values in accordance with the provisions of the 2013 curriculum.

Assessment standard is a minimum criterion of evaluating the process and learning outcomes of students in order to fulfill the achievements of graduate learning in accordance with the 2013 curriculum, teachers are required not only to carry out cognitive and psychomotor assessments, but also to carry out affective assessments. For the assessment the teacher is required to know one by one the personality / attitude of each student. In the implementation of the teacher requires a short time in assessing the learning process in accordance with the curricula of 2013.

## 2. Methods

This descriptive research aims to describe the percentage of the average implementation of the biology learning process based on the 2013 Curriculum in senior high schools throughout the Pesisir Selatan District. This research was carried out in Senior High Schools throughout the Pesisir Selatan District that had implemented the curriculum 2013, namely SMAN 1 Painan, SMAN 2 Painan, SMAN 3 Painan, SMAN 1 Koto XI Tarusan, SMAN 1 Bayang, SMAN 2 Bayang,. The time of the study was carried out in June-July 2018. The population in this study were biology teachers in the Senior High Schools throughout the Pesisir Selatan District totaling 18 teachers who had implemented the 2013 curriculum in the implementation of the learning process, in this study the techniques used in taking the sample is *Total Sampling*. The entire population is made directly as a sample.

**Table 1.** Population and Sample of research

No.	State High School	Total
1	SMAN 1 Painan	3 people
2	SMAN 2 Painan	3 people
3	SMAN 3 Painan	2 people
4	SMAN 1 Bayang	3 people
5	SMAN 2 Bayang	4 people
6	SMAN 1 Bayang 1 Koto XI Tarusan	3 people

Total	18 people
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*Source: Teachers of Biology Subjects of State High Schools throughout the Pesisir Selatan District of 2018 The*

This research was carried out in the following stages:

- a. Managing all administration related to research observations.
- b. Conduct initial observations
- c. Find research problems.
- d. Determine the research subject based on the results of observation.
- e. Looking for literature review material which is the source of research proposal writing.
- f. Prepare research proposals.
- g. Make research instruments.
- h. Perform questionnaire validation with the validator.
- i. Confirm first with the school. Prior to the data collection, the researcher asked permission from the principal and submitted a research permit from Padang State University and the West Sumatra Provincial Education Office.
- j. Confirming biology teachers in class X, XI, and XII of the State High Schools in the Pesisir Selatan District that have been targeted for research.
- k. Conduct research in the biology laboratory of State High Schools throughout the Pesisir Selatan District.
- l. Analyze data.
- m. Prepare research reports.

Data analysis techniques carried out in this study are<sup>[8]</sup>:

$$NP = \frac{R}{SM} \times 100\% \quad (1)$$

NP= Value of the percentage sought

R = Raw score obtained

SM = Maximum score

Then to provide criteria for each indicator, the modified classification is used from Arikunto[1] with the following range.

**Table 2.** Criteria for Imaging Percentage of

Intervals	Percentage	Criteria
25-50		Less
51-75		Enough
76-100		Good

### 3. Results And Discussion

#### 3.1. Standard Process

The average implementation of the biology learning process in the planning aspect is around 87% with good criteria. This reveals that the process standard on the planning aspect has been running in accordance with the provisions in the 2013 curriculum. The implementation of the biology learning process in the 2013 curriculum aspects of the implementation of 89% with good criteria, this proves that the implementation of the biology learning process in State High Schools throughout the Pesisir Selatan District has been running in accordance with the provisions in the 2013 curriculum. It can be seen that the

- a. Teacher fosters motivation for students before starting the lesson because motivation is very important to grow the confidence of each student

- b. Teacher does not forget to re-increase the material that has been studied in the previous meeting so that students always remember what material they have obtained
- c. The teacher does not forget to associate learning material with everyday life so participants students easily understand the material because they have seen and experienced it themselves
- d. After a number of sub-materials have been delivered, the teacher asks the students about the sub-material so that the teacher knows whether the students already understand or not
- e. Teacher-student interaction. It is good for students to provoke students to be more active than before and involve students in summarizing conclusions from the material that has been taught at that time, so that students better understand the material that has been taught.
- f. The teacher informs students about the material that will be discussed so that students have read the material before

### 3.2. *Standard Assessment The*

Implementation of the biology learning process based on the 2013 curriculum in the Pesisir Selatan District High Schools in the assessment standard has been running well with an average percentage of 80.1% with good criteria. This reveals that the teacher already giving an assessment to students when answering questions or going forward to work on the problem. The teacher always absences the attendance of students and is included into the assessment. The teacher provides remedial assessment for students who have values under the minimum completeness criteria so that improvements occur. The teacher gives and students who have mastered the material so that more students can master it.

### 3.3. *Impact of 2013 Curriculum for Students and Teachers*

The 2013 Curriculum impacts on students and teachers from the results of research, the impact of the 2013 curriculum for students obtained a percentage of 80% with good criteria. This revealed that the 2013 curriculum was very helpful for students in implementing the learning process because with the 2013 curriculum the learning process is more interesting and fun so students are more active in asking questions and expressing opinions and students have good and built character (more polite, honest, respecting differences etc.), because character education and character education are integrated in each learning both cognitive, affective and psychomotor aspects.

The impact of the 2013 curriculum on teachers in Pesisir Selatan District High Schools was 82% with good criteria. This revealed that the 2013 curriculum was very helpful for teachers in the implementation of the learning process because teachers were more enthusiastic in improving the quality of learning. Teachers were more enthusiastic, in developing learning methods and to increase knowledge and teachers to pay more attention to students as a whole. The results of the author's interviews with several biology teachers in the South Pesisir District Senior High Schools regarding the impact of the 2013 curriculum for students and teachers. The results showed that the 2013 curriculum burdens students because the lesson hours are added even though participants students have a maximum limit of concentration in learning. Teacher unpreparedness for the 2013 curriculum because there is still a lack of training held by the regional government in realizing the 2013 curriculum to teachers in the field of study, as well as the time participants participate in school to study and take extracurricular activities required by the 2013 curriculum.

### 3.4. *Special Things that Need to Get Attention, in the Implementation of the Biology Learning Process.*

In the questionnaire the researcher also attached a biology teacher's opinion on specific matters that received attention so that the learning process in the 2013 curriculum could run smoothly, namely:

- a. Advice and infrastructure that must be equipped such as the availability of laboratory equipment that is still small and laboratory should be used must comply with national labor standards, lack of internet access in schools and lack of LCDs and computers in schools, this

is to support the implementation of biology learning processes that are in accordance with the 2013

- b. curriculum. 2013 curriculum content is still constrained in time allocation so it is proposed to increase time allocation especially for Biology subjects .
- c. Books for learning resources for students and teachers are still lacking. It is expected that there will be additional source books for 1 student to get 1 source book for learning so that the biology learning process in school can run smoothly.
- d. The implementation of biology learning in the 2013 curriculum will run smoothly if the teacher who teaches in the class is accompanied by peer tutors from the teacher or MGMP to provide input if there are obstacles in the implementation of the biology learning process so as to improve the quality of the teacher.

#### 4. Conclusions

Based on the results of the research and discussion, several conclusions can be made, namely: The implementation of the biology learning process in the 2013 curriculum in the South High School in the Pesisir Selatan District is based on the standard process of 85.5% with good criteria. The implementation of the biology learning process in the 2013 curriculum in the State High Schools in the Pesisir Selatan District is based on an assessment standard of 80.1% with good criteria. The impact of the 2013 curriculum on students and teachers in State High Schools throughout the Pesisir Selatan District in the implementation of the biology learning process is 80% for students with good criteria while 82% for teachers with good criteria.

#### 5. Suggestion

For teachers, teachers improve their quality and creativity more in compiling and developing the 2013 curriculum. So that the implementation of the biology learning process by teachers can run according to the rules in the 2013 curriculum. For schools, schools can further improve facilities and infrastructure so that learning can run effective such as a comfortable classroom and learning tools, the school and teachers work together to hold training sessions between teachers so that teachers can issue their understanding of the 2013 curriculum to teachers who do not understand. For the government, with the KTSP curriculum change being the 2013 curriculum, the government should better prepare everything before implementing the curriculum such as education staff, curriculum socialization to teachers and facilities that support the successful implementation of the 2013 curriculum.

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