



Description Study of Components Of RPP Physics Class XII on Direct Current Circuit Material

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ABSTRACT

This study aims to conduct a descriptive study of the components of the Physics lesson plan for SMA class XII on the direct current circuit material. The researcher analyzed the suitability of the completeness of 3 lesson plans from 3 physics teachers in class XII who used the 2013 curriculum. This research was a quantitative descriptive study using a survey instrument in the form of a questionnaire with a Likert scale. Secondary data collection is a data collection technique used in this study. Data analysis was carried out by content research. The stages used in this research are; First, set the time from the beginning of the study to the end. Second, make an analysis instrument for the components of the lesson plan. Third, prepare the RPP to be analyzed. Fourth, analyze the RPP. Fifth, take data and draw conclusions. Based on the research and study of the RPP components that have been carried out, it was found that for all the indicators on the instrument, the three RPP were in line with Permendikbud No. 22 of 2016. However, when viewed per indicator on the instrument, it was seen that the three RPP of physics teachers scored sufficient in terms of motivating students.

Keywords: Descriptive Study, Components, RPP, Direct Current Electricity

1. INTRODUCTION

The Learning Implementation Plan is a learning guide and administration in order to achieve one or more basic competencies according to the Content Standards and syllabus. Through the RPP, the teacher has a full position in the arrangement of the RPP that he or she has prepared (Mulyasa, 2009). In Government Regulation No. 19 of 2005 concerning National Standards for Learning Article 20 it is explained "learning process planning includes syllabus and lesson plans which at least contain learning objectives, materials, learning steps, learning references and evaluation of learning" (Yusman, 2011).

The revised 2013 curriculum guides RPP elements based on Permendikbud No. 22 of 2016 concerning Standards for Primary and Secondary Education Processes. According to the Minister of Education and Culture, the RPP elements are listed, namely (a) school data, (b) subject or theme names, (c) class/semester, (d) subject matter, (e) time distribution, (f) learning objectives, (g) basic competencies and indicators, (h) learning materials, (i) learning methods, (j) learning media, (k) references, (l) stages of learning, (m) evaluation of learning outcomes.

Physics as one of the subjects that play an important role in shaping the mindset of students is better and can find out its application in life. Because physics describes a thinking container that discusses things logically and mathematically. Physics is essentially a scientific discipline that examines natural phenomena with a series of processes called scientific processes while the results are called scientific products which consist of three main components, namely concepts, principles and theories (Trianto, 2010). Physics discusses phenomena and natural phenomena that occur in the surrounding environment. Physics is closely related to nature, so studying physics must master the basic concepts of the material. Knowledge of physical concepts plays an important role in studying and analyzing phenomena that occur in nature. Every concept of physics is closely related to other concepts.

One of the obstacles in the implementation of physics learning is the lack of knowledge of educators regarding curriculum so that it has an impact on the ability to prepare lesson plans. The plan describes the initial actions that will be carried out in an activity. The plan serves as a guide that contains the stages of activities to be carried out. Without the planning of an activity, the activity cannot be carried out optimally. Planning is the basic stage before learning activities begin (Majid, 2009). Planning in learning is very useful in guiding teachers to serve as teachers and educators.

One of the physics materials in high school is a direct current circuit. The DC circuit is an important concept that is closely related to daily activities. However, many studies show students' difficulties in understanding the material. Kock, et al. (2014) stated that students' difficulties in direct current circuit material include students having difficulty in drawing and interpreting electrical circuits, students are confused with the concepts of current and voltage, students see the power supply as a source of constant current instead of a constant potential difference, and students do not realize that changes one element impacts the current in the entire circuit. Rahmat (2017) explained that so far, physics learning rarely teaches the implementation of physics in social life. In addition, most students find physics difficult because the formulas are convoluted and many calculations are made. However, the errors that occur are often ignored without any follow-up as an effort to recognize the errors that exist in students in studying physics. This has an impact on physics concept errors that will continue to occur.

Based on the description above, it is necessary to analyze the RPP components based on the 2013 curriculum on direct current circuit material. Given the importance of the role of lesson plans in the implementation of learning, guiding teachers in carrying out their roles as teachers and educators. The purpose of this research is to study the completeness of the RPP components according to the 2013 curriculum.

2. EXPERIMENTAL

Descriptive approach is the approach used in this study. The quantitative descriptive approach is based on a literature review. The research sample was conducted on the lesson plans of three physics teachers from three different schools. The lesson plans taken are direct current circuit material for odd semester class XII. The stages used in this research are; First, set the schedule and series of research activities to be carried out. Second, make research instruments. Third, prepare the RPP to be analyzed. Fourth, analyze the RPP. Fifth, retrieve data. Sixth, draw conclusions.

The data collection technique was done by taking 3 samples of lesson plans from three different teachers. The RPP is obtained by directly asking the physics teacher's RPP to be analyzed and then photocopying, photographing or requesting the RPP file to the teacher concerned. After collecting three lesson plans, they were analyzed using the component analysis instrument of lesson plans. The RPP component analysis instrument in this study uses a Likert scale with answer options from 1-5 points. According to Sugiyono (2010) the Likert Scale serves to assess the attitudes, responses and understanding of an individual or group related to a social phenomenon.

Analysis of the components of the lesson plan is done by giving a score according to the indicators that exist in the instrument that has been made. Then calculate the value per existing indicator, then limit the criteria to the value obtained. Then the data analysis is continued and accumulates responses from each question item and gives a score level for each response. Then calculate the score obtained into a percentage. After analyzing the three physics teacher lesson plans, conclusions were drawn according to the data that had been obtained and analyzed.

3. RESULTS AND DISCUSSION

Developing a teaching program before implementing classroom learning is one of the professional skills that a teacher must have. Teaching programs need to be structured so that learning is planned and systematic. Therefore, every subject teacher is required to compile a learning planning program, such as an annual program, semester program, KKM, lesson plans, including physics teachers. The basis of the analysis used is Permendikbud Number 22 of 2016 concerning Standards for Primary and Secondary Education Processes.

RPP is a learning agenda that plays an important role in the implementation of the learning process. With the formation of this lesson plan, it is hoped that teachers can carry out well-organized and programmed learning. RPP is a component that is needed by every teacher, because it is one of the mandatory things to do before teaching activities in the classroom so that it is in accordance with the competency standards and basic competencies contained in the material to be taught.

RPP development is carried out at the beginning of the learning year or at the beginning of the semester. The development of lesson plans is carried out by teachers in groups in teacher working groups (KKG) or individually. In this case, the teacher must know that the lesson plans contain a general description of the planned activities during learning that will be carried out by students and teachers. Thus, the design of lesson plans is a fundamental ability that must be understood and possessed by teachers and prospective teachers later.

Based on the assessment of the learning implementation plan documents from three physics teachers on DC circuit material, in general, the results obtained from the analysis that have been carried out are as shown in the following graph:

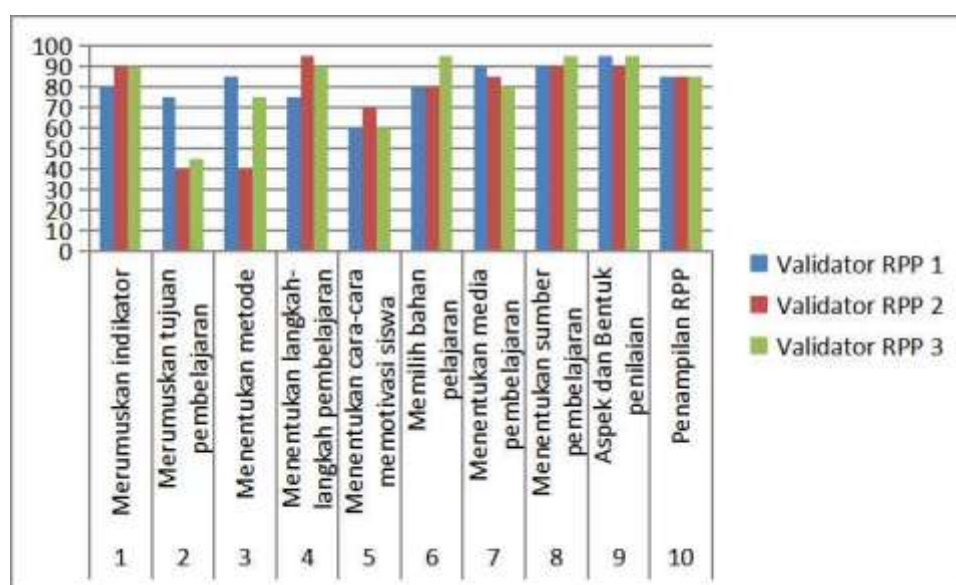


Figure 1. Graph of RPP Analysis Results

Table 1. Assessment criteria

Persentase	Kriteria
< 50	Sangat Kurang
$50 \leq x < 60$	Kurang
$60 \leq x < 75$	Cukup
$75 \leq x < 90$	Baik
≥ 90	Sangat Baik

Based on the analysis of the lesson plans from three physics teachers with data collection techniques in the form of direct analysis of the lesson plans and obtained an assessment in the form of percentages. For RPP 1, it shows a score of 81.5%, this shows that the RPP made is in accordance with Ministry of Education and Culture Regulation No. 22 of 2016 and is in the good category.

However, there is one indicator, namely in determining ways to motivate students, the lowest score is 60%. This happens because the method used by the teacher is less varied. Whereas according to the Ministry of Education and Culture (2016) in the attachment to Permendikbud Number 22 of 2016 explains that giving students motivation to learn according to the application of the material in daily activities, through examples and aligned with the characteristics and levels of students.

Furthermore, for the assessment of RPP 2, a score of 76.5% was obtained, this indicates that the RPP made is in the good category. However, there are still two indicators in the very poor category, namely formulating learning objectives and determining methods with 40% each. This happened because the teacher did not fully explain the objectives and learning methods. Whereas according to the Ministry of Education and Culture (2016) in the attachment to Permendikbud No. 22 of 2016 explains that learning objectives are prepared based on Basic Competencies (KD) using verbs that can be measured and observed. The learning objectives include three aspects, namely attitudes, knowledge and skills. While the learning method serves as a reference for educators in creating a learning atmosphere so that students can achieve KD which is arranged based on the characteristics of students.

The learning method is one of the main components that determine the success of the teaching and learning process. The learning method contains strategies so that students can participate in learning effectively and efficiently. However, teachers still have difficulty in formulating this learning method. Therefore, teachers need to adapt the method to the learning material and use varied learning methods so that students are enthusiastic about participating in the teaching and learning process.

Then for the assessment of RPP 3, a score of 81% was obtained, this shows that this lesson plan is in the good category. However, there are two component indicators, namely formulating learning objectives and determining ways to motivate students by 45% and 60%, respectively. Even though the preparation of learning objectives is an important step in designing the implementation of learning. From these objectives can be determined what and how to do other steps. The things formulated in the learning objectives will be the basis for determining the types of materials, strategies, methods and learning media. Without a goal, the learning process becomes disoriented so that it becomes ineffective.

In preparing learning objectives, it must contain ABCD elements, including:

A = Audience (a group that is the target of learning, namely students)

B = Behavior (good personality that is expected to be embedded in students after learning is done)

C = Condition (prerequisite condition when students have finished following the learning process)

D = Degree (level of achievement that must be achieved by students)

A detailed description of the impact of the absence of learning objectives in the lesson plans, the teacher will have difficulty: (1) setting the objectives of the learning implementation, (2) determining

the initial prerequisites for learning, (3) developing learning strategies, (4) selecting learning media, (5) designing evaluations learning and (6) planning remedial.

Based on the results of the analysis of the RPP components, several factors were found that caused the incompatibility of the RPP components with the Ministry of Education and Culture Regulation Number 22 of 2016, including:

- a. The teacher has not planned the opening of the lesson well and has not determined the type of activity. For this reason, teachers need to plan the opening of learning well so that they can motivate students and make students active in the learning process.
- b. Lack of motivation from teachers in preparing lesson plans. At the beginning of each new school year, teachers are asked to prepare teaching administration including prota, promissory note, syllabus, lesson plans and others. However, teachers often used administration in previous years. Some lesson plans on certain materials and topics will be changed later if necessary.
- c. The lack of understanding of teachers in designing lesson plans based on the 2013 curriculum. The 2013 curriculum as a substitute for KTSP has been revised several times. For this reason, there is a need for a basic understanding that must be known in the RPP based on the 2013 curriculum.
- d. There is still a lack of training held by educational institutions. The education office is expected to be more consistent and continuous in accommodating training and discussions in an effort to improve the quality of learning.

4. CONCLUSION

Based on the study of RPP components that have been carried out on three class XII physics teacher lesson plans on direct current circuit material, it can be concluded that for all of the indicators on the instrument and obtained the three RPPs are in line with Permendikbud Number 22 of 2016. However, when viewed per indicator on the instrument, it can be seen that the three physics teacher lesson plans got sufficient marks in terms of motivating students, this indicates that the three teachers have not fully understood how to motivate students in learning. In the indicators for formulating learning objectives, the second and third teachers still lacked understanding because in these indicators the two teachers received very poor criteria. Indicators about determining the method for the second teacher are also still lacking because they get very few criteria.

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