

The Design of Discovery Learning Model

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ABSTRACT

A lesson plan is considered as a very significant tool which must be had by the teachers before conducting teaching and learning process since it is always used as the guidance. In line with that, learning model is usually applied in the lesson plan to ease the teacher to design the activities needed. This study aims to describe the way the lesson plan using Discovery Learning Model designed by English teachers and focus on how the steps applied. The steps of stimulation, problem statement, data collecting, data processing, verification and generalization are analysed in accordance to examine whether the activities showed on each steps are designed correctly as their function. This study is conducted by applying descriptive qualitative method with three lesson plans of English teacher of Junior High School in *Labuhanbatu* taken as the sample. This study showed that there are some mistakes done by the teacher in designing the activities for they did not comprehend what each steps of the syntax of Discovery Learning Model are meant and functioned and did not know how to compose the suitable activity for each.

Keywords: *Discovery learning, Qualitative Research, Teaching Set Design.*

1. INTRODUCTION

The curriculum 2013 was proposed to be implemented to create the students to be able to live as a religious, productive, creative, innovative, and effective individual and citizen. In addition, learning process is guided by the principles of scientific approach [1]. The scientific approach should maintain: observing, questioning, experimenting, associating and communicating which would be delivered through three main teaching model introduced which are Problem Based Learning, Project Based Learning and Discovery Learning.

Discovery learning is a model to develop active learning through inquiry and observation to get the result [2]. It means that the students can learn to think critically and try to solve their own problem. The Education Ministry states that there are six steps in applying Discovery Learning, they are: stimulation, problem statement, data collection, data processing, verification and generalization. Furthermore, the six steps of Discovery learning will be described as follow:

1.1. Stimulation

In this step, the teachers are encouraged to give something which makes the students think toward the material being discussed or learned. This step can be done by giving the students a question need to be solved, showing pictures or asking the students to read

the book to provide information needed for solving the upcoming problem.

1.2. Problem Statement

In this step the teachers give a chance to the students to identify the relevant problem which is suitable to the material and try to make the hypothesis. This step also can be done by giving the students a chance or ask the students to offer questions related to the material discussed.

1.3. Data Collection

In this step the students are asked to gather all the information needed. It can be done through reading, observing, interviewing and experimenting to answer the problems appeared or to prove their previous hypothesis.

1.4. Data Processing

In this step the students organize the information they got and use them to provide the answers or evidence to support their opinion.

1.5. Verification

In this step the students are doing a complete examination to prove their previous hypothesis

supported by the result got on the data processing activities.

1.6. Generalization

In this step the conclusions are made by considering the verification step.

The detail steps of discovery learning are expected to help the teachers in decreasing the student’s difficulties in learning. Yet, it would be happen if the Discovery Learning model is well-prepared and correctly designed in the lesson plan regarding to the steps of the model.

After having an observation on one of the English teacher’s lesson plans, different phenomenon showed as follows: (the activities are limited and simplified to get the focus of the data without changing the meaning).

Stimulation:

- The students are given a text and a picture and asked to read the text
- The students are asked to answer the questions based on the text.

From the data above the teacher had correctly decided what to be done in the stimulation by asking the students to read the text and ask them to answer the questions related to the text. But then, the teacher made problem by providing the picture but nothing to deal with it. The question is what’s the point of giving the picture, then?

Another problem also found on the same lesson plan on the last step which is written as follow:

Generalization:

The students are discussing to conclude the text.

The data showed that there is a misunderstanding with the teacher toward this step’s purposes. Instead of making a conclusion of the material being discussed or learned which is adjective, the teacher in fact asked the students to make a conclusion of the text. The questions are what’s the point of concluding the text? Is it necessary to be done to master the material which is adjectives?

For those conditions above, the researcher aims to describe the way the teaching set using discovery learning designed by the English teachers.

2. METHOD

This research uses descriptive qualitative method as the research design. In descriptive qualitative method, the data were systematically and accurately analysed based on the theory applied in the study. Qualitative research explores the problem and provides detail understanding of a central phenomenon and the data

described and interpreted to get the larger meaning of the findings [3]. The sources of data were three lesson plans designed by English teacher using discovery learning.

The document analysis is used to collect the data of this research. The document chosen to be analysed is the lesson plan designed by the English teachers to observe the activities arranged for each steps of discovery learning and compare them to the standard or manual owned by the researcher taken form the journal or book related based on The Education Ministry.

In analysing the data, the researcher used the theory that proposed by [4] which are: data collection, data condensation, data display and verification and conclusion.

3. RESULT AND DISCUSSION

After analysing the data, more unsuitable activities designed by the English teachers are found on each steps of discovery learning compare to the functions of each steps and the suitable activities might be appeared proposed by The Education Ministry.

Table 1. The Result of the Design of Discovery Learning

The Steps of Discovery Learning	Frequency	Percentages (%)
Stimulation	4	50
Problem Statement	-	-
Data Collection	2	25
Data Processing	2	25
Verification	-	-
Generalization	-	-
Total	8	100

The table I showed that the steps of stimulation scored 4 of 8 unsuitable activities designed by the English teachers or about 50%, while both data collection and data processing had the same amount of unsuitable activities which are 2 of 8 activities or about 25% for each.

In the examples below, the data are not correctly designed compared to the steps proposed by The Education Ministry.

3.1. Data 1

The data were taken from lesson plan 1 and focused on the step of stimulation as follows:

The teacher explains the form of adjectives using to be in Present Tense (is, am, are)

The teacher introduces the form of Simple Present Tense's sentences in the using of adjectives and giving some examples.

In data 1, the teacher set the first and the second activities in a row, while both of the activities are quite the same in purpose. So, there is no need to set the activity twice. Meanwhile, since the stimulation step is conducted to encourage the students to think toward the material it's better to provide the information through activities and ask the students to think about it by themselves without explaining it as stated on the first activity.

3.2. Data 2

The data were taken from lesson plan 2 and focused on the step of data collection as follows:

The students are formed into groups and asked to discuss, collect and present the material learnt. Grammar: Simple Past Tense.

In data 2, the teacher set the activities in a very general way with no focus and limitation on what should be done in particular for this step. Since this step is urging the students to collect the information needed to help them solving the problems on the next step (Data Processing), it's better for the teacher to set the activity in a more detail and focus activity such as asking the students to find the formula of Past tense and the examples.

3.3. Data 3

The data were taken from lesson plan 2 and focused on the step of data processing as follows:

The students are asked to do the questions related to Simple Past Tense Grammar.

In data 3, the teacher set the activity in correct way regardless the indicators need to be achieved on the lesson plan. But since the indicators expected the students to complete the jumbled sentences and to write a simple sentence in past tense the activity set by the teacher is incorrect and better to be replaced by the suitable activity regarding to the indicators.

4. CONCLUSION

The dominant step found on three lesson plans analysed was stimulation which scored 4 of 8 unsuitable activities designed by the English teachers (50%). It means that the teachers still face difficulties in designing the appropriate activities of this step.

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