ABSTRACT

The objective of this study was to describe the ways the discovery learning implemented in teaching and learning process. The data of this study were teachers’ implementation while they were implementing discovery learning. Participant observation technique was performed to collect the data. Based on the data analysis, it was found there were differences between the activities designed and implemented since the teacher did not understand nor comprehend the model completely. Furthermore, all of the observed teachers conducted the activity of data collection by explaining the material to the students and mostly focused on the grammar and not letting the students collecting the data by themselves. Moreover, during the implementation, the male teacher tended to draw a pattern of explaining and assigning while the female teachers tended to give stimulation first and followed with explaining and assigning. It showed that there was difference in the way of implementing discovery learning between the teachers based on their gender.

Keywords: Discovery Learning, Implementation, EFL, EFL Classroom

INTRODUCTION

As the guideline, curriculum happened to have some changes several times caused by some factors affected, Richards in Shofiya (2014) which led the curriculum changing into the newest one known as the curriculum 2013. The curriculum 2013 is delivered under the principles of scientific approach with the syntax of: observing, questioning,
experimenting, associating and communicating and has four main teaching models promoted. They are Problem-Based Learning, Project-Based Learning, Inquiry Learning and Discovery Learning. Later on, this study focused on Discovery learning.

Discovery Learning pushes the students to find the concept of several information or data which are gained through observation and experiment, Sani (2014, 97). In addition Hosnan (2014:282) states discovery learning is used to create active learning to gain the result. Through this model, the students pushed to use their critical thinking to solve the problem by themselves. Based on both of the definitions above, we can conclude that in Discovery Learning the teachers do not provide the final result during the learning process, but asking the students to experience the process through observation or experiment to get the result. The students are allowed to use their ability, creativity and innovation in solving the learning problem.

Kemendikbud (2013) states the syntax in implementing Discovery learning, which are: 1) Stimulation, 2) Problem Statement, 3) Data Collection, 4) Data Processing, 5) Verification and 6) Generalization. The syntax of Discovery Learning helps many teachers and other researchers in increasing their students’ abilities if only the model implemented through a precise and well-prepared design related to the syntax and the comprehension of the teachers while implementing the model.

For that reason, the researcher wanted to describe the ways of the teachers while implementing the model in their classroom

**METHODOLOGY**

This study was conducted by using descriptive qualitative research design. The data of this study were the teachers’ implementation focused on the implementation of discovery learning syntax and all the utterances consisting of all the steps of Discovery Learning. The sources of data in this study were 3 English teachers (MN, TI, IS) from SMP Negeri 2 Bilah Hulu, Kabupaten Labuhanbatu with different ages, experience of teaching and with 3 classes to be observed for each. Furthermore, participant observation technique was performed to collect the data.

**FINDINGS AND DISCUSSIONS**

In implementing Discovery learning, the syntax were analyzed based on the theory of Kemendikbud (2013) to observe whether the syntax were implemented correctly or
not based on their function and purposes. The implementation of Discovery learning can be seen in the following tables.

**Table 1. The Implementation of MN**

<table>
<thead>
<tr>
<th>No</th>
<th>Syntax</th>
<th>Implemented</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stimulation</td>
<td>Data Collection</td>
<td>You can see our topic on page 141-142. Alright, Past Tense means the activities happened in the past. Yesterday we have studied about Present Tense and now Past Tense. Well, you can see the difference of the verb used for both of these tenses in the dictionary which are classified into verb 1, verb 2, and verb 3. For example: go – went – gone. The formula of Past tense is S+V2, for example: we clean the classroom everyday. Repeat after me ‘We clean the classroom everyday’.</td>
</tr>
<tr>
<td>2</td>
<td>Problem Statement</td>
<td>Generalization</td>
<td>So the conclusion is when we find verb in a sentence then we have to change the verb into past form and when we find the helping verb such as to be then we need to change the helping verb used into past</td>
</tr>
<tr>
<td>3</td>
<td>Data Collection</td>
<td>Problem Statement</td>
<td>Now, until here, any questions?</td>
</tr>
<tr>
<td>4</td>
<td>Data Processing</td>
<td>Data Processing</td>
<td>Now please open your book page 154. You can see 12 questions. But you need to answer only six of them. You have to write the sentences number 1 up to 6 first in your notebook and then underline the word which shows that the sentence is in Past form. Got it?</td>
</tr>
</tbody>
</table>
Ok, the conclusions are: if the sentence has a verb then the verb is changed into past form (V2). When a sentence uses to be then the to be is changed into past form while if the sentence uses auxiliary then the auxiliary is changed into past form as written in the whiteboard.

The Table 1 above showed four steps of Discovery Learning in a row implemented. They were data collection, generalization, problem statement and data processing. The syntax was not implemented systematically as the theory suggested, but implemented the way the teacher felt more comfortable for the teacher and students.

The table also showed that the activity of data collection was implemented through teacher’s explanation unlike the theory suggested that the students had to find and collect the information by themselves. The generalization also stated twice, once in the middle of the learning process and the other was in the end. In the other hand, the problem statement activity only implemented through question asked to check students’ understanding.

Comparing to the lesson plan designed, there were differences activities implemented in the data collection and data processing. While stimulation and verification designed but not implemented.

This condition supported by the data taken from MN interview as follow:

**Data 1 from MN interview**

Researcher : Then, why do you implement Discovery Learning the way they are?  
MN : I implemented the model the way they are for I believed those were the best way in delivering the steps for my students and then I didn’t do some steps of the model for not only I forgot but also for other reasons such as there were no time available or the students prefer to had the answers from me directly.

In data 1, MN stated on his interview that he implemented the process by starting the syntax with asking the students questions for stimulation activity and followed with data collection which he delivered through explaining the topic to the students and gave
assignments to the students for data processing. He stated that it was the best way to deliver the syntax to his students because of the students’ lack of ability. He also stated that he forgot to implement some of the steps of discovery learning and it needed much time in implementing the whole steps.

In opposite to that, the researcher observed that the teacher wasted much time for explaining all the topic learned and wasted more time for waiting the students finishing the assignments given. This could be happened for the teacher thought that he had explained the material thoroughly but in fact the students got less information needed from it. That made the students had difficulties in finishing the assignments.

<table>
<thead>
<tr>
<th>No</th>
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<th>Implemented</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stimulation</td>
<td>Stimulation</td>
<td>Please open your book page 128 chapter VI. Today we are going to study about job. What is the meaning of job? I’ll show you some pictures. Look at the picture number 5. What does he do? Can you see the picture? Number 4? What does he do?</td>
</tr>
<tr>
<td>2</td>
<td>Problem Statement</td>
<td>Data Collection</td>
<td>Now, have a look at the sentence. ‘I’ is used as the subject while ‘am’ is the to be. So we can say that nominal sentence of Simple Present is used in telling job. With the pattern used is S+tobe+O. While verbal sentence is used for describing job for example. Where do you study?</td>
</tr>
<tr>
<td>3</td>
<td>Data Collection</td>
<td>Problem Statement</td>
<td>Until we got here, any questions?</td>
</tr>
<tr>
<td>4</td>
<td>Data Processing</td>
<td>Data Processing</td>
<td>Now, I’ll give exercise sheet for each group. Listen to the instruction. Discuss in your group and match the pictures with the suitable job given. Got it?</td>
</tr>
<tr>
<td>5</td>
<td>Verification</td>
<td>Verification</td>
<td>Ok, which group would like to go in</td>
</tr>
</tbody>
</table>
Now I’ll give you another task. Discuss with your group. All you need to do is to have a look at the picture and match the picture with the suitable name of the job, the place of work and the job’s description. Got it?

OK, let’s have another group to join in front of the class and check all of your answers

Ok, any questions so far?

As the conclusion if you want to ask someone’s job you can use the questions here (pointing the whiteboard) while for answering you can use simple present.

The Table 2 above showed that all of the syntax of Discovery Learning implemented with repetition of verification, problem statement and data processing activities. The activities implemented in a row were stimulation, data collection, problem statement, data processing, verification, data processing, verification, problem statement and generalization.

Difference of activities was shown on problem statement. The activity was conducted by asking the students to restate the statements of the dialogs given and in lesson plan but through questions asked about their understanding in implementation. The data collection was implemented by listening explanation while in lesson plan students asked to identify the language features, to match the jobs and the description and to ask his/her friends’ parents’ job. The generalization also went in different direction. The students were asked to present the information they had about parents’ job in the lesson plan, which should be included into verification and not generalization, while in implementation the students were asked to conclude the material learned.

This condition supported by the data taken from TI interview as follow:
Data 2 from TI interview

Researchers: Then, why do you implement Discovery Learning the way they are?

TI: I did the implementation the way they are for some reasons. In the first meeting syntax problem statement was not implemented because I forgot to implement it. For the second meeting I gave more than one exercise so double verification occurred. For the third meeting I need to ensure students really understand the material, so that repeated implementation occurs. In supporting to this I adjusted the steps during the implementation.

From data 2, TI admitted that she did the repetition on the implementation of the steps of discovery learning. She claimed that the repetition happened for she wanted to make sure that her students understood the material completely. While for the unsystematic steps and the difference activities implemented, TI said that those were the adjusting needed to be done considering the situation and the condition of the class. But, there was no explanation for the reason why the steps of problem statement and data collection implemented in different direction compared to the design of lesson plan.

Table 3. The Implementation of IS

<table>
<thead>
<tr>
<th>No</th>
<th>Syntax</th>
<th>Implemented</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stimulation</td>
<td>Stimulation</td>
<td>Before we started I want to ask you. Have you ever compare something like animals, things or people maybe?</td>
</tr>
<tr>
<td>2</td>
<td>Problem Statement</td>
<td>Data Collection</td>
<td>But before we study about it I want to explain about Degrees. of Comparison. First is positive degree for the same level of adjective owned by people, animals or things. The pattern is you need to put the word ‘as’ and followed by the adjective and followed again by the word ‘as’. For example: Tari is as short as Reyhan....</td>
</tr>
<tr>
<td>3</td>
<td>Data Collection</td>
<td>Problem Statement</td>
<td>Any question?</td>
</tr>
<tr>
<td>4</td>
<td>Data Processing</td>
<td>Data Collection</td>
<td>For understanding the social function</td>
</tr>
</tbody>
</table>
of our lesson, there are 4 social function of comparison degree. They are: to show their differences, to be proud of them, to praise them and to criticize them. So if the sentence is ‘Rio is taller than Kari’ which social function is suitable for it?

5 Verification Data Processing I will give you a worksheet and please do in group. So, what will we do? Look at page 120-121. You have to analyze what level of degree of comparison is the sentence included and what is its social function. Ok, please do it now.

6 Generalization Verification Please step up the class. and read your groups’ answers.

The Table 4.6 above showed that only five steps of the syntax of Discovery Learning implemented with repetition of data collection but had no step of generalization. They in a row were stimulation, data collection, problem statement, data collection, data processing, and verification.

Difference of activities was shown only on data collection. The activity was implemented by listening to the teacher’s explanation while the lesson plan asked to gather information needed to be used to identify the text detail information.

This condition supported by the data taken from IS interview as follow:

**Data 3 from IS interview**

Researcher : Now the next question is why do you implement Discovery Learning the way they are?

IS : Because my lack of ability to understand and apply it in learning process. And lack of willingness of students to be active in identifying problems made most of them confused about how to convey them.

From data 3, IS stated that her lack of understanding of discovery learning affected her way of implementing the syntax in the teaching and learning process. She also stated the lack of students’ willingness to be active also made her confused on how to suggest the
students to be more involved in the process. This situation made the teacher as the center of the learning process. The researcher found that the problem was the lack of the teacher’s ability in composing the suitable and interesting worksheet to scaffold the students’ critical thinking. The teacher needed to practice more in it.

CONCLUSIONS

All the teachers implemented the syntax of Discovery Learning in unsystematic order as the theory proposed. Then, one or two steps of the syntax of Discovery Learning also implemented twice while in the other hand one or two steps also skipped or lost for adapting the class and students’ need and condition. Moreover, the teachers were inconsistency, for there were differences between the activities designed and implemented. From this situation, it could be assumed that the teachers didn’t understand nor comprehend the model completely. In addition of the teachers conducted the activity of data collection by explaining the material to students which mostly focused on the grammar and not letting the students collecting the data as they were designed. Furthermore, during the implementation MN tended to draw a pattern of teaching which was explaining and assigning while TI and IS tended to give stimulation first and followed by explaining and assigning.

REFERENCES