

THE IMPLEMENTATION OF DISCOVERY LEARNING MODEL IN TEACHING ENGLISH AT A HIGH SCHOOL IN YOGYAKARTA

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ABSTRACT

Despite the fact that English is a compulsory subject in senior high school, students' English language is still unsatisfactory. In Indonesia High School Curriculum, discovery learning model is one of learning models that are appropriate to the scientific learning approach. The aims of this research is to describe the implementation of discovery learning model in teaching English. This study was descriptive qualitative study in which data were gathered from observation, interview, and document analysis. The data of this study were the activities in the classroom did by the teacher and students during teaching learning process. The source of data is one the English teacher at SMAN 1 Pakem, Yogyakarta. The findings of four observations reveal that the teacher had implemented discovery learning model based on principles and steps in accordance with 2013 curriculum. In implementing the principles of discovery learning model, learner management and failure & feedback were mostly occurred during the teaching and learning process. In implementing the steps of discovery learning model, problem statement was mostly occurred during the teaching and learning process. The principles and steps of discovery learning model encourages the teacher to make the students find their own way of learning. Syntax of discovery learning model written by the teacher on the Rencana Pokok Pembelajaran (lesson plan) also guides the teacher to be aware of discovery learning steps. In classroom teaching and learning process, it gives students experience to combine their prior knowledge with new knowledge from English textbooks, while the teacher is a facilitator in their own learning.

Keywords: English language teaching, scientific approach, discovery learning

I. Introduction

Despite the fact that English is a compulsory subject in senior high school, students' English speaking skill is still unsatisfactory. Even though English is a compulsory subject in SHS, the frequency to practice and get used to communicate in English is very low in daily life. The skills of English language eventually will be very important for social interaction and develop culture in international. Therefore, the ability to speak English as a foreign language is very important to master.

A proper learning model is needed to improve English language in senior high school using 2013 curriculum. This curriculum requires scientific approach in developing students' attitudes, skills and knowledge. In the implementation of learning, teachers can integrate the elements of a scientific approach with various models, strategies and learning models. In Indonesia High School Curriculum, discovery learning model is one of learning models that are appropriate to the scientific learning approach. According to Bruner as cited in Pappas, (2014) discovery learning model can be a proper learning model that encourage the students to build the past experiences and knowledge, using their intuition, imagination and creativity, and looking for new information to discover the facts, correlations and new truths with this learning model.

II. Literature Review

a. Discovery Learning

Pappas (2014) stated that according to the history, Discovery Learning was introduced by Jerome Bruner and it's a method of inquiry-based instruction. The students can encouraged to build the past experiences and knowledge, using their intuition, imagination and creativity, and looking for new information to discover the facts, correlations and new truths with this learning model. Discovery learning can be defined as a learning model that used to learn by situations where the learner can get the experiences to learn with they own learning which is the content of the material is not given by the teacher. Pappas, (2014) said that the Discovery Learning Model integrates the following 5 principles such as Problem Solving, Learner Management, Integrating Connecting, Information Analysis, and Failure & Feedback. In accordance to Badan Pengembangan Sumber Daya Manusia Pendidikan dan Kebudayaan dan Penjamin Mutu Pendidikan, (2013). In implementing the discovery learning model there are several steps that must be applied, such as Stimulation, Problem Statement, Data Collection, Data Processing, Verification, and Generalization.

b. Discovery Learning as Learning Model to Teach English

In accordance with the applicable curriculum, in implementing the discovery learning model can also be applied in all lessons including English language lessons. Discovery learning model in teaching and learning process does not present as the whole material to the students, but only present a formulation of the problem that was prepared by the teacher. In the learning process with this discovery learning model the role of the teacher is not separated just like that, the teacher still must guide learners in finding a concept for learning outcomes not out of goals to be achieved. It is just that the guidance provided by teachers should be reduced so that learners the opportunity to become a scientist by finding knowledge, concepts or subject matter independently.

To find or get a new science students cannot only believe what they think is right. So that requires a model that can make them believe that what they have found is something that is right, by using discovery learning models they can prove their findings are true and meaningful knowledge for their life.

III. Research Method

This research is conducted by using qualitative research (descriptive). The setting of this research is at English subject on one of social class at SMAN 1 Pakem, Yogyakarta. The subject of this research is one of English teacher of SMAN 1 Pakem. Observation, interview and document analysis involved as source of data of this research. The researcher used observation checklist, interview questions and teacher's lesson plan as research instruments. The data collected through observation in four times and interview with one subject. The researcher also conducted the field notes based on the situation that happened during teaching process at SMAN 1 Pakem.

IV. Research Findings and Discussion

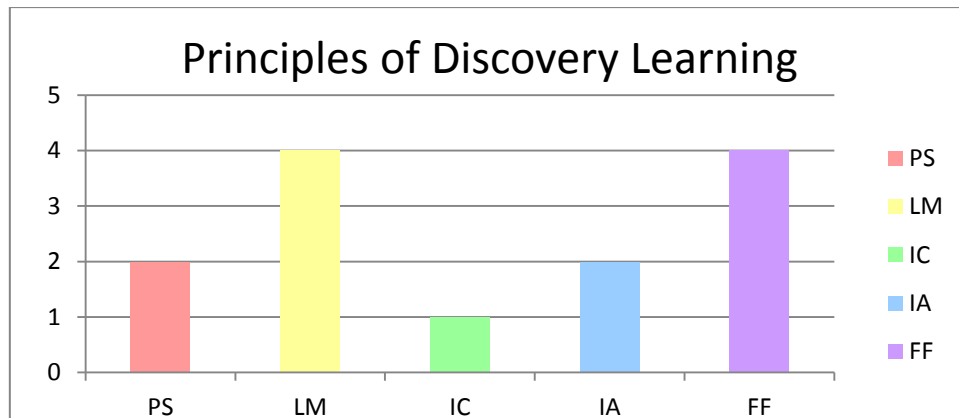
a. Findings

Observation

The researcher made checklist observation to be used for analyzing the data. The researcher is going to analyze the class activity to analyze the Discovery Learning that implemented in the class. The activity that used during the class will be analyzed by the researcher by following these two points; the principles of discovery learning and steps of discovery learning. The researcher made observation checklist during the class and it

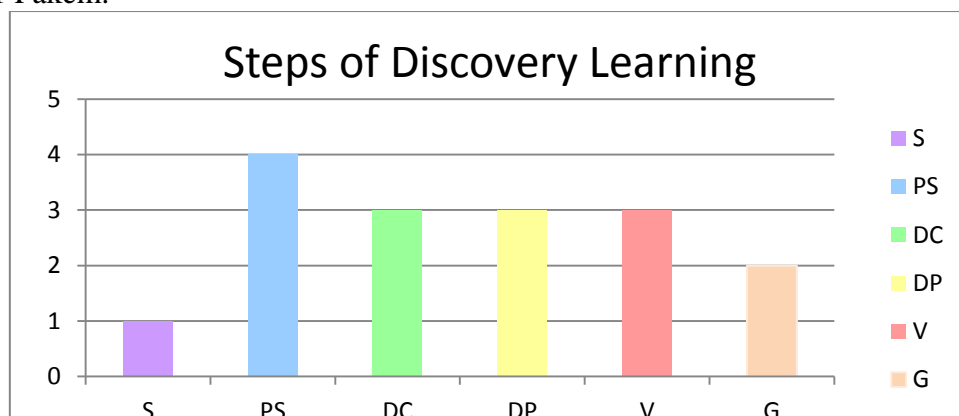
intended to analyze the implemented discovery learning model in teaching speaking at SMAN 1 Pakem.

Figure 4.1 Chart of Observation Analysis of The Implementation of Discovery Learning at SMAN 1 Pakem.



The chart above is focused on the implemented of discovery learning model at SMAN 1 Pakem. (Pappas, 2014) said that the Discovery Learning Model integrates the following 5 principles; problem solving, learner management, integrating connecting, information analysis, and failure & feedback. The researcher found all the principles of discovery learning occurred in during observations. The figure above shows how many times it occurred in each observation. Learner management and failure & feedback was mostly occurred during the teaching and learning process.

Figure 4.2 Chart of Observation Analysis of The Implementation of Discovery Learning at SMAN 1 Pakem.



The chart above is focused on the implemented of discovery learning model at SMAN 1 Pakem. (Badan Pengembangan Sumber Daya Manusia Pendidikan dan Kebudayaan dan

Penjamin Mutu Pendidikan, 2013) said that the Discovery Learning Model integrates the following 6 steps; stimulation, problem statement, data collection, data processing, verification, and generalization. The researcher found all the steps of discovery learning occurred in during observations. The figure above shows how many times it occurred in each observation. The problem statement was mostly occurred during the teaching and learning process.

Interview

In the interview, the researcher investigate participant's point of view on implementation of Discovery Learning model in the class. From the participant's perspective in general, it shows that although it is challenging to do teaching activities using discovery learning models, teacher and students can enjoy the learning process. That's because teacher get more benefits from activities than challenges. The sample of interview transcript can be seen in table 4.2.

Table 4.1 Interview Transcript

Subject	Line	Transcription	Theme	Code
I		Assalammu'alaikum warahmatullahi wabarakatuh. Good morning Mrs. #00:00:05#		
P	1	Wa'alaikumsalam warahmatullahi wabarakatuh #00:00:08#		
I		Yes, beforehand, we know that in SMAN 1 PAKEM using the 2013 curriculum right? #00:00:19#		
P	2	Yes, right #00:00:20#		
I		Yes #00:00:20#		
P	3	Since the beginning of the 2013 curriculum as a high school pilot, SMAN 1 PAKEM used it #00:00:29#		
I		Oh yeah, in Indonesia also used the 2013 curriculum right? #00:00:33#		

P	4	Yes #00:00:33#		
I		E... According to the 2013 curriculum based on government regulations, there are 3 learning models, such as Problem based learning, Project based learning and Discovery learning. Did you apply these 3 learning models? #00:00:54#		
P	5	Yes, applies too, it depends on the KD that matches with the learning model, which model is adjusted to the KD #00:01:07#	Principles of Discovery Learning	I/1/PDL/5
I		Oh yeah, it means that based on your RPP you usually use the Discovery learning model right? #00:01:17#		
P	6	Yes, a lot. The discovery learning model looks the most #00:01:21#	Principles of Discovery Learning	I/1/PDL/6
I		Oh, the most used? That's why, Mrs. #00:01:25#		
P	7	Yes because, from here the students will find they own concept after learning, like that. #00:01:38#	Principles of Discovery Learning	I/1/PDL/7
I		Yes, so they can learn on their own, right? #00:01:41#		

Document Analysis

Documents that were analyzed in this research are teacher's lesson plan and textbook. The teacher's lesson plan according to curriculum 2013 that contain the material and learning activity that implemented by discovery learning model. Textbook that used by the student is English Pathway Book distributed by the government. Student assessment based on the material that is being taught.

The documents analysis indicates that discovery learning model used in English subject class gave the teacher several advantages and challenges in teaching with this learning model. The teacher should combine the principles and steps of the implementation of

discovery learning model in the class. The teacher should make the students engage the use of English speaking in the classroom.

b. Discussion

Principles of Discovery Learning

The researcher analyzed the principles of discovery learning based on the observation. There are three points appear in the first observation that suitable with Pappas, (2014) principles which are Learner Management, Information Analysis, and Failure & Feedback. On the second observation, there are four points appear which are Problem solving, Learner Management, Integrating Connecting and Failure & Feedback. On the third observation, there are three points appear which are Problem solving, Learner Management, and Integrating Connecting. On the fourth observation, there are three points appear which are Learner Management, Information Analysis, and Failure & Feedback. On the fifth observation, all the principles of discovery learning appear during teaching process.

For discovery learning to be effective, the teacher has applying the principles of discovery learning such as problem solving, learner management, integrating connecting, information analysis, and failure & feedback. Data from the interview indicates that the teacher has applying principles of discovery learning.

From the interview (I/1/PDL/5, I/1/PDL/6, I/1/PDL/7, I/1/PDL/34, I/1/PDL/35), it can be concluded that most of classroom activities was done by implement discovery learning model. According to the principles of discovery learning that include **Learner Management**, the teacher should allow students to work either alone or with others, and learn at their own pace. By the implement this learning model, the students will find they own learning.

“Yes, applies too, it depends on the KD that matches with the learning model, which model is adjusted to the KD.” #00:01:07# (I/1/PDL/5)

“Yes, a lot. The discovery learning model looks the most.” #00:01:21# (I/1/PDL/6)

“Yes because, from here the students will find they own concept after learning, like that.” #00:01:38# (I/1/PDL/7)

“Usually discovery learning is in group, right.” #00:10:07# (I/1/PDL/34)

“So, for example the impact with speaking, it depends, if the monologue it means he is alone. If dialogue it means 2 people in pairs, right. If for example role play it means more than 2 people .” #00:10:27# (I/1/PDL/35)

From the interview (I/1/PDL/49, I/1/PDL/50, I/1/PDL/51, I/1/PDL/52, I/1/PDL/53), it can be conclude that most of classroom activities was done by implement discovery learning model. According to the principles of discovery learning that include **Failure & Feedback**, learning doesn't only occur when we find the right answers. It also occurs through failure.

Discovery learning does not focus on finding the right end result, but the new things we discover in the process. And it's the instructor's responsibility to provide feedback, since without it learning is incomplete.

“Yes, we give an, reward” #00:15:38# (I/1/PDL/49)

“Yes, if they good, we give them a compliment, right” #00:15:44# (I/1/PDL/50)

“Yes, so it make them feel happy” #00:15:48# (I/1/PDL/51)

“If they are wrong, e it should actually be like this...” #00:15:56# (I/1/PDL/52)

“Explanation, e you should study hard, maybe your study is not optimal” #00:16:02# (I/1/PDL/53)

This finding is in line with research finding conducted by Pappas, (2014) that has integrates five principles of discovery learning, and also confirmed by data from document analysis on Teacher's lesson plan.

Steps of Discovery Learning

The researcher analyzed the principles of discovery learning based on the observation. There are four points appear in the first observation that suitable with Badan Pengembangan Sumber Daya Manusia Pendidikan Dan Kebudayaan Dan Penjamin Mutu Pendidikan, (2013) steps which are Problem Statement, Data Collection, Data Processing, and Generalization. On the second observation, all the steps of discovery learning appear during teaching process. On the third observation, there are four points appear which are Problem Statement, Data Collection, Data Processing, and Verification. On the fourth observation, there are two points appear which are Problem Statement and Verification. On the fifth observation, there are five points appear which are Problem Statement, Data Collection, Data Processing, Verification and Generalization.

For discovery learning to be effective, the teacher also has applying the steps of discovery learning such as stimulation, problem statement, data collection, data processing, verification, and generalization. Data from the interview indicates that the teacher has applying steps of discovery learning.

From the interview (I/1/SDL/69), it can be conclude that most of classroom activities was done by implement discovery learning model. According to the steps of discovery learning that include **Problem Statement**, the teacher should presents a problem to students, for example by giving a question about the material being studied.

“Oh, give questions like warming up. Yes, I give the question to students that concern to the problems that will be discussed. So, and then asking questions like warming up” #00:18:56# (I/1/SDL/69)

This finding is in line with research finding conducted by Badan Pengembangan Sumber Daya Manusia Pendidikan Dan Kebudayaan Dan Penjamin Mutu Pendidikan, (2013) has integrates several steps of discovery learning that must be applied, and also confirmed by data from document analysis on Teacher's lesson plan.

So, from the Teacher's lesson plan, finally we can see that discovery learning appears in the description of the learning method. Based on the 2013 curriculum this learning method has 3 sub-components, namely approach, learning model, and learning method. The approach is scientific, the learning model here appears to be discovery learning and problem based learning, and the method is with question and answer, interviews, discussion and role play.

Table 4.2 Excerpt of Document Analysis

E. Learning Method

- 1) Approach : Saintifik
- 2) Learning Model : Discovery learning, Problem Based Learning (PBL)
- 3) Learning Method : Question & Answer, Interview, Discussion and Role Play

F. Learning Media

1. Media

- ❖ Worksheet
- ❖ Assessment sheet

2. Tools/Materials

- ❖ Ruler, marker, whiteboard
- ❖ Laptop & in focus

G. Learning Resources

- ❖ Supporting Book 2013 Curriculum English Subjects Class XI, Ministry of Education and Culture, Revised 2016
 - ❖ English dictionary
 - ❖ Students' and teachers' experiences
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V. Conclusion

This research succeeded in answering the research questions about how discovery learning model is implemented in teaching English in one of 2nd grade of social class at SMAN 1 Pakem. The findings reveal that both principles and steps of discovery learning model are implemented in classroom teaching and learning for English subject. This study is descriptive qualitative research in which data were gathered from observation, interview, and document analysis. Observation is done in four times and interview with one subject.

From the observation findings, it was found that the teacher had implemented discovery learning model based on principles and steps in accordance with 2013 curriculum. In implementing the principles of discovery learning model, learner management and failure &

feedback were mostly occurred during the teaching and learning process. In implementing the steps of discovery learning model, problem statement was mostly occurred during the teaching and learning process.

From the interview findings, the principles and steps of discovery learning model encourages the teacher to make the students find their own way of learning. In addition, from document analysis finding, syntax of discovery learning model written by the teacher on the Rencana Pokok Pembelajaran (lesson plan) also guides the teacher to be aware of discovery learning steps. In classroom teaching and learning process, it gives students experience to combine their prior knowledge with new knowledge from English textbooks, while the teacher is a facilitator in their own learning.

The researcher concludes that the implementation of discovery learning model helps the teacher in teaching English. Teaching English language by applying the principles and steps of discovery learning give the teacher benefit in the implementation of discovery learning model. Moreover, the principles and steps of discovery learning model cannot be separated from the implementation of discovery learning because in the implementation of this learning model the principles and steps should be applied based on the 2013 curriculum.

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