# The Implementation of Discovery Learning Model for Word Formation in Morphology Subject of Morphophonemics Material Throughopen Lesson

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## Abstract

Discovery Learning Model is a learning model that emphasizes the form of learning process to self-organize.Discovery learning model is said to be a learning-oriented and student-centered learning model.Word formation in the Indonesian language is one of the most common problems. This study discusses the use of discovery learning model in Morphophonemic material learning in Morphology subject.The research is employed a quantitative-qualitative method.The quantitative one is used to measure learning outcomes and student activeness in learning, while the qualitative one is applied to know the learning process by using discovery learning model.The learning process using the discovery learning model is started by providing stimulus, giving text for identifying data, collecting data that has phoneme removal and phonemic addition, analyzing the phonemic disappearance and adding phonemes, analyzing the results of the analysis with the existing theory, and drawing conclusions at the end.The findings demonstrate that the learning outcomes obtained an average of 82, the implementation of learning on Morphophonemic materials using the discovery learning model show a percentage of 85, and in terms of liveliness, the students followthe Morphofonemic material learning with a percentage of 80.

Keywords: *discovery learning model, learning, morphophonemic*

## A. Introduction

Based on Permendikbud no 49 in 2014, National Standard of Higher Education (SN-Dikti) is a minimum criterion of learning at higher education level in universities throughout the jurisdiction of the unitary state of the Republic Indonesia. Learning itself is defined as the process of interaction between students with lecturers and learning resources in a learning environment. Based on the competency standards of graduates there are several principles of learning that include attitudes, knowledge, and skills (general and specific). While the standard of learning content includes the depth and breadth of learning materials. The characteristics of

these competencies will affect the process standards. The process standards include the characteristics of the learning process, the planning of the learning process, the implementation of the learning process, and the burden of student learning. In order to support the learning objectives to be achieved and the standard process with the four criteria runs as expected, then in the learning process needs an appropriate model.

The expected competencies can be achieved by using a learning model with an approach that can improve the ability of active students. One of the models that can be applied is the discovery learning approach. This model is often said to be a model in student-centered learning, where students are given the opportunity and freedom to try, guess, use intuition, investigate, and draw conclusions and enable educators (lecturers) to guide and help students to use the ideas, concepts, and skills they have in order to find new knowledge (Purnomo, 2011).

Antony Robbins in Trianto defines learning as a process of creating the relationship between the knowledge that has been understood and the new knowledge. Understanding learning includes elements (1) the creation of relationships, (2) things (knowledge) that have been understood, (3) things (knowledge) that is new. It can be said that learning does not start from scratch but in the form of the process of linking knowledge that someone has owned with new knowledge (Trianto, 2009).

As with learning, learning is defined as a product of sustainable interaction between development and life experience. In general, learning is said as a conscious effort from a person educator to make learners learn in order to achieve the expected goals. So it can be drawn a conclusion that learning is a two-way interaction from educators to learners in which there is a communication (transfer) intensive and directed to the target set previously (Trianto, 2009).

Learning model is one of the tools used by educators so that the learning process can run maximally. Learning model can be applied by educators in learning and make teaching and learning activities to be varied and of course this can avoid student's saturation in learning. The use of student-centered learning models can have a very positive impact compared to lecturer-centered learning.

Discovery learning model is one of the learning theory that is defined as a form of learning process that occurs if the student is not presented with the material in the final form, but is expected to organize themselves. As a form of learning strategy, discovery learning model has a principle similar to inquiry model and problem solving learning model. The difference is that

in the discovery learning model, for example the problem given to learners as a problem that has been engineered by educators, while the inquiry model of the problems that are made is not the result of engineering. The steps of applying Discovery Based Learning or Discovery Learning are as follows (Nazir, 2009).

a. Stimulation

Lecturers provide stimulation to students who raises questions and arise desire to investigate themselves. Stimulation can be questions, pictures, objects, stories, phenomena, and other learning activities that lead to the preparation of finding a concept.

b. Problem statement (problem identification)

Lecturers invite students to identify issues relevant to the material presented for the stimulus. From the problem, the answer is formulated as a temporary estimate (hypothesis).

c. Data collection

Students collect relevant information to prove the hypothesis or find a concept. Data can be obtained through reading literature, observing objects, interviewing with resource persons, doing their own testing and so on.

d. Data processing (data processing)

Students process the data that has been collected. Data processing in order to direct the concept to be achieved.

e. Verification

Students perform the examination of the truth of the hypothesis related to the results of data processing. This study uses Morphology courses/subject. Morphology is one of the compulsory courses in the Prodi S-1 of Indonesian Language and Literature Education. Description of Morphology subject is a discussion of morphological classification, ie affixation (prefix, insertion, and suffix), reduplication (pure re-word, repeating sounds, pseudo-word, recalculated word), composition (compound word). Morphology subject contains of 3 (three) credits. This course is given to students of class of 2015 or semester 5. Morphology subject is conducted in 16 meetings including Midterm Test and Final Test. Morphophonemic material is one of the materials in Morphology lectures. Morphophonemic is a study of the process of sound changes or phonemic changes as a result of the morphological process, either the affixation process, the reduplication process, or the composition process. The

morphophonemic process is divided into 5 (five) phases ie (1) phonemic addition, (2) phonemic imprinting, (3) phoneme changes, (4) phoneme consonant, and (5) phoneme removal (Chaer, 2015).

Research subjects in this study were students. In Indonesian Language Dictionary (KBBI), students are defined as people who study in universities. Students are said to be an enrolled student aged 18 to 25 who are enrolled in college from academics, polytechnics, high schools, institutes and universities. In this research, the subjects used are the students of Indonesian Language and Literature Education (*Pendidikan Bahasa dan Sastra Indonesia*/PBSI)University PGRI Adi Buana (UNIPA) Surabaya academic year 2015 and the object used is the result of answers/tests written by the student.

Based on the above description, the formulation of the problem in this research is (1) how is the process of applying the discovery learning model ofMorphology subject inMorphophonemic material of class Bstudent of PBSI UNIPA Surabaya? (2) whether the discovery learning model is effective on student learning result of Morphology subject in Morphophonemic material of class B student of PBSI UNIPA Surabaya?

## B. Method

This study aims to describe the process of applying discovery learning model in Morphophonemic material of Morphology subject student class of 2015 PBSI UNIPA Surabaya and find out whether the effective discovery learning model of student learning outcomes in Morphophonemic material of grade B student of PBSI UNIPA Surabaya. Based on the above research objectives, this research includes the research of mix method (quantitative-quantitative).

Quantitative research is used to know the effectiveness of the discovery learning model on student learning outcomes, while the qualitative research is used to find out how the process of applying the discovery learning model in learning on Morphophonemic materials. The instrument used in this research is in the form of test equipment (description problem), student activity sheet, instructional lecture observation sheet. All of these instruments will be described on the results obtained. Population in this research is the student of class of 2015 Study Program of PBSI UNIPA Surabaya, which consists of three classes.

Sampling is done by simple random sampling because the population is considered homogeneous. From the simple random sampling obtained by the research subjects of class B

of 2015 which amounted to twenty-five students who will be divided into five groups, each consisting of five students.

The data collection procedure in this research is done by test and observation. Observation technique is used to see human behavior (research subject), work process, natural phenomenon because the respondent is not too big that is 25 students. Indicators of effectiveness in this study is the learning outcomes obtained by students on minimum of completeness, ie 65 and student activity in both categories, and the implementation of learning in both categories.

Data analysis techniques used are qualitative descriptive and quantitative averages and percentages. Qualitative descriptive is used to know the learning process using discovery learning model on Morphology course study in Morphophonemic material, while quantitative averages and percentage. used to know the activities of students in the learning process, and know the implementation of learning in the classroom. The calculation formula can be described below.

Percentage formula. the implementation of student learning and activities (Akdon and Riduwan, 2010).

Remarks:

$$P = \frac{N}{Nmaks} \ x \ 100\%$$

P : Calculated percentage

N : Scores obtained

Nmaks : Maximum scores

The score interpretation criteria can be seen in table 1 below (Akdon and Riduwan, 2010).

**Table 1. Score Interpretation Criteria**

| Percentage | Category |
|---|---|
| 81 - 100 | Excellent |
| 61 - 80 | Good |
| 41 - 60 | Fair |
| 21- 40 | Poor |
| 0 -20 | Very poor |

## C.  Findings and Discussions

In the open lesson process in Morphology subject, Morphophonemic material lasts for 70 minutes starting from the opening, the learning core to the cover and reflection. In terms of

open lesson, lecturers or in term of open lesson called model lecturer do learning using discovery learning model.

Open lesson is a step that must be done in implementing the Lesson Study for Learning Community (LSLC) grant from the Directorate of Learning Directorate General (DG) of *Belmawa*. This grant aims to improve the quality of learning in a collaborative & sustainable way through empowering the learning community. Through LSLC lecturers should think and design student-centered learning, help student difficulties, and how to make students understand the teaching materials easily. The philosophy of the LSLC program includes:

• Fairness: sharing goodness, respect for diversity of opinions.

• Democracy: listen to each other, everyone must live together and work together.

• Excellence: instead of comparing with others, everyone can be the best (source DG *Belmawa*).

The following will be described learning process open lesson material Morphophonemic the subject of Morphology using learning discovery learning model.

1. Lecturer gives stimulus about the material to be studied by way of questioning about word formation in Bahasa Indonesia.
2. After the students have an initial understanding, the lecturers divide the students into five groups, each group consists of five students.
3. In the implementation of open lesson, each group is observed by the designated observer.
   4. Observer has the task of observing the activities of each student in one group (five students) with reference to the prepared observation sheet.
4. The lecturer gives a text taken from Kompas daily entitled "*Waisak Menginspirasi Perdamaian*" to the five groups with answer sheets.

The lecturer gives the training work in the form of a question related to the text that has been distributed, that is identifying the use of a word undergoing Morphophonemic process (phoneme removal and phoneme addition) and explaining the process of change of the word.

5. In groups, students discuss the problem solving on word formation in pre-shared texts, students can use reference in doing the test, can be through literature book, internet, and other supporting reference. Discussion time and working for 20 minutes.

6. Observer observes in detail the students during the discussion (identifying, analyzing, and concluding). From the observer observation found several things as follows.

   a. Observer observation result, in general group of one student active. There are students who are less active in discussion activities named Winda A. She just follows the movements of friends and does not argue inthe discussion. The student donot study the material well.

   b. From the observer observation, the two groups follow all the learning carefully except Dadang. He is very silent. He has not followed the learning well.

   c. For group three, the observer observation shows that the students have learned about the given learning topic. However, the students named Sahid is more passive than his friends and the lecturer approaches the student.

   d. In the group of four, students in general have been actively discussing. However, there is a student named Naufal who is very passive. It seems he does not understand the material in detail. However, lecturers explain more intensively the material to him.

   e. The last five groups are seen as active students in learning and discussion. There appears to be a student named Muhaimin who has not understood the material well, it is likely that the student does not make preparations for the lectures that day.

7. After the discussion ended, the lecturer asked the representatives of each group to present their work in front of the class.

8. The lecturer observes and corrects the student's results directly. From the results of the student responses shown up front, most of the group's answers are correct. If any answer is still wrong, the lecturer directly gives corrections to the wrong answer.

9. From the results of tests that have been obtained show that each student in the group can find a theory related to the formation of words in the Indonesian language that can explain the process of the formation of words that have added phonemes and phoneme removal contained in the text entitled "Waisak Menginspirasi Perdamaian".

10. The lecturer gives a material reinforcement of the Morphophonemic process. Lecturers and students make conclusions and reflections on the material they have learned based on the results of the analysis and calculation of the percentage.

## D. Conclusions

The learning process using discovery learning model begins by giving stimulus, giving the text to do the identification of data, followed by collecting data in the form of words that experienced phoneme removal and addition of phonemes, analyzing the word experiencing

phoneme removal and addition of phoneme, verify the result of analysis with existing theory, and ended with the conclusion of the analysis. In general, the average learning outcomes obtained by 82%, the implementation of learning on Morphophonemic materials using the discovery learning model shows the percentage of 85%, and in terms of liveliness, students follow the learning on Morphophonemic material with percentage of 80%.

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