

**THE IMPLEMENTATION OF DISCOVERY LEARNING AND SCIENTIFIC  
LEARNING APPROACH AND STUDENTS' PERCEPTION IN CURRICULUM 2013. A  
STUDY AT IPA XI OF SMAN I BOLO IN ACADEMIC YEAR OF 2016/2017**



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**Abstract**

This thesis related to the study on discovery learning and scientific learning in the students' perception of Curriculum 2013. In this case, the researcher interested to know the study on discovery learning and scientific learning which had been implemented to Curriculum 2013. The total population was 135 students. They were taking from the 11<sup>th</sup> Grade Students of IPA at SMAN 1Bima in the academic year 2017. The researcher applied the qualitative description. There were three types of data collected by the researcher namely observation, interview and questionnaires in which both of them was taken from videos recording and they had been transcribed and another data was given through questionnaires for students. In this thesis, there were two the research questions namely How are discovery learning and scientific learning approach implemented at SMAN 1 Bolo and the second one, How are the students' perception on the use of discovery learning and scientific learning approach in teaching English. The first research question confirmed that English teachers could not be able to implement discovery learning and scientific learning maximally in the classrooms. So that, it was conveyed to English teachers that they had to improve their ability to send them in better quality for comprehension of discovery learning and scientific learning in Curriculum 2013. On the other hand, there were some results which could be seen from the second research question. It was performed by the result which started from the first number to ten. The result of study in research question for number 2 showed that there were a variety of result percentages obtained from the students; perception.

*Keywords: Curriculum 2013, Discovery Learning, Scientific Learning Approach, Students' Perception.*

## **Abstrak**

Tesis ini berkenaan dengan pembelajaran tentang penerapan pendekatan penemuan (Discovery Learning) dan pendekatan Ilmiah (Scientific Learning) Approach dan persepsi siswa terhadap Kurikulum 2013. Dalam hal ini, ada sekitar 135 populasi yang merupakan penyebaran dari 5 kelas IPA XI yakni IPA XI1, IPAXI2, IPAXI3, IPA XI4 dan IPAXI5. Peneliti mengambil 3 kelas sebagai sampel penelitian dengan 3 guru bahasa inggris dari 6 populasi guru yang ada. Peneliti menggunakan Qualitative Descriptive dan 3 jenis pengumpulan data yakni Observasi, Interview dan Angket. Dalam tesis ini ada 2 persoalan yaitu bagaimana pelaksanaan pendekatan penemuan dan ilmiah yang dilaksanakan di SMAN I Bolo dan Bagaimana persepsi siswa terhadap penggunaan 2 pendekatan tersebut dalam pengajaran bahasa inggris. Pertanyaan pertama mendapatkan hasil bahwa guru belum mampu melaksanakan pendekatan penemuan dan ilmiah secara maksimal dan siswa menunjukkan bahwa ada beberapa persentase hasil yang berbeda yang diperoleh dari respon angket yang diberikan kepada siswa mengenai persepsi tentang pendekatan tersebut dalam pelaksanaan Kurikulum 2013.

Kata kunci: *Kurriculum 2013, Pendekatan penemuan dan pendekatan ilmiah, persepsi siswa.*

## **I. Introduction**

There was a new regulation issued by the Indonesian Government related to Curriculum of education. This regulation was to change previous curriculum namely KTSP Curriculum to Curriculum 2013. This Curriculum engages to a scientific approach which has been using not only for science but also for the all subjects, including of social subject such as English language and so on. The existence of Curriculum 2013 plays an important role in a mid of the National education system. According to (Abruscato, J., 1999) that Curriculum 2013 expected to purify in previous curriculum to significant competency, to manage it with considerable knowledge resources, to conduct the learners involve lively in learning progression, learning based on related to the pattern, textbooks available which describe about substance and learning development and the last is able to make learning procedure and result on target in to a good administering authentic assessment.

The implementation of curriculum 2013 was still difficult for English teachers. They felt so hard to understand as good as possible about the learning process which offered by curriculum 2013. Maba, W., Perdata, I. B K., Astawa, I. N., & Mantra, I. B. N. (2018). In this case, Curriculum 2013 was expected to bring advantageous for increasing the quality of National Education System. Besides that, teachers' factor should be pay attention in which they as the instructors had to be able to become the real facilitator to conduct their students for getting a good capability in cognitive, emotional, and psychomotor even about their social aspect. Therefore, the use of discovery learning and scientific learning at the secondary learners was very appropriate (Bruner, J. S, 2009); Richard, Jack, and S. Rodgers, Theodore. (2001).

There were some steps of discovery learning used in this thesis. They were stimulation, problem statement, data collection, data processing, verification, and generalization. In another side, scientific learning could be marked by six steps such as observation, questioning, information collection, associating, conclusion and communication. The goal of this approach is developing "sense of inquiry" and brings students to get their actively thinking. Based on the early confirmation, the principle said that they have been implementing of curriculum 2013 during 3 years. She admitted that, we did not understand and could not implement those approaches comprehensively. While, the writer was truly finding out that there were some troubles faced by teachers of English in teaching and learning (Daryanto, 2014); (Hosnan, 2014).

In addition, the writer saw that there were some teachers got complicated to play their exactly role in teaching learning as sequence of their incapability to conduct the students' spirit, making attractive classrooms and be right well to push the students' motivation (Anita, D., Mbete, A. M., & Mandala, H. (2018). Furthermore, the students had a bad perception and custom to respond teaching and learning in curriculum 2013. As students, there a lot of them stated not easy to adapt and adopt the new method explained into curriculum 2013. Therefore, English teachers were still supposed as the only best one of learning resources by students. In this situation, it became an idle reason for the learners to be not very active in teaching learning process and felt difficult to understand the lesson materials because their paradigm had not been moving from the past (Gunawan Imam, 2014); HamalikOemar, 2009). To get further information about the case above, the writer had a big intention to do the investigation of "Study on Discovery Learning and Scientific Learning in students' perception of curriculum 2013".

## **II. Review of literature**

Curriculum 2013 is competency and character based curriculum. It is one of the government's efforts to resolve the various problems being faced by the world of education today. Curriculum 2013 relates to the theme of generating Indonesia people in productive, creative, innovative, and effective, through the strengthening of attitudes, skills, and knowledge which are integrated. This Curriculum was exactly promoted by the Minister of National Education and Culture in the beginning of 2013 or in academic year 2013/2014. In this study, there were two approaches that would be discussed, namely discovery learning and scientific learning approach. Both of them could be seen further as follows:

Discovery Learning is the way of learning which will be asking to students to identify the problems, solution, find out relevant Discovery Learning can be defined as the learning that takes place when the student is not presented with subject matter in the final form, but rather is required to organize it himself" (Lefancois in Emetembun, 1986:103 in Depdikbud2014). On the other hand, according to Borthick and Jones (2000) stated that in *discovery learning*, students have to identify about problem, solution, discover relevance information, to perform win strategies, and perform strategy which is chosen.

Scientific Learning is a way or learning mechanism to facilitate students in order to obtain knowledge or skill with procedure based on a scientific method (Kemdikbud, 2013).

Scientific Learning is how to build students' basic competence by scientific skills and scientific affective processes. Scientific process reflects on basic competence to study (basic learning tools) which it is an ability to form base in each of individual in self-development (Chain and Evan, 1990).

### **III. Research Method**

In this thesis, the writer applied an approach namely descriptive qualitative. Descriptive qualitative Approach is characterized by exploring a problem and developing a detailed understanding of a central phenomenon (Craswell, 2012). In this point, the writer showed all important events as long as running the research (Arikunto, 2010).

This investigate was performed at SMAN 1Bima. In this case, the writer held on the observation in the eleventh Grade students of IPA in the classroom. It was taken from November to December 2017. There were 3 English teachers as the subject of the research namely Nur Aini, S.Pd Khusnul, S.Pd, and Dian, S.Pd. The study was performed for 30 learners which distribute in some classes they were IPA 1, IPA 2, and IPA 5. The writer took 10 students as the samples in completing of the research in every class above. The writer proposed the object of study that could be called as discovery learning and scientific learning in the students' perception of curriculum 2013 at the eleventh Grade of IPA of SMAN 1Bima in 2017 academic year.

In this study, the writer used 3 ways to get the data such as through observation, interview and questionnaires. There were some points in the result of data collection namely the teaching learning action, the outcome of dialogue to English teachers and how did the react of the students to give their perceptions in the questionnaires. The writer used a method which has been mentioned as descriptive qualitative to analyse the data. (B. Miles, Matthew, and Huberman, A. Michael. (1994); (Setiawan, I., & Laksana, I. K. D., 2018).

### **IV. Finding**

In viewing the data of study, the writer took 3 English teachers used discovery learning. In carrying out of discovery learning, the earliest English teacher applied stimulation; in this section, English teacher asked to the students for looking at and reading English book. After that, he initiated to get the data by collecting it. In this time, students had been given a chance to gather information related to title of English lesson material. And then, the second step that was

data processing taken by teacher. Finally, the data which had been collecting during teaching learning process was analyzed by English teacher in directed to their comprehension of the topic discussed.

The result of processing for teacher number 2 had been showing that, she did the stimulation by giving the students' motivation through asking them to read English books and also asking them to the questions. Furthermore, there was a great deal of information collected by English teacher to sustain the learning material discussed. And then, the data was gotten from the instruction as well as the objects of observation. While, the writer described there was a little difference between three of English teachers.

English teacher number two showed that there was a better performance than the first teacher where it had been described at teacher stimulation, collection of data as well as processing of data. In this matter, English teacher encouraged the learners for improving their spirit through offering the students to ask the questions as well as to read the books. In addition, she gathered several information to maintain the topics discussed. Furthermore, data of the learners had been analyzed by English teacher in relating of the instruction and also about the object of watching. Moreover, it was obtained that the writer found out the differences between all English teachers when they implemented teaching learning into the classrooms.

Furthermore, according to the information was gotten from the interview, the writer found out of various opinions to English teachers related to the use of discovery learning. In the situation of teaching learning process, reading was always asked by English teacher number one, collected the data to help the learners to get precisely information in making the lesson materials discussed to be well established. While, English teacher number two admitted that, the learners were given a chance to settle their project. She let them to read and to gather English materials in the book. She hoped that the students could increase their knowledge and all students had been expected to handle their concept as good as possible. However, there was an unusual in teaching learning process that presented by English teacher number 3 because he just talked and presented the English materials without inviting the students' involved actively. It means that he could not make vividly up the classroom through the students' motivation attraction as well as enable to involve the learners inactive and creatively of learning.

Connected to the problem, the writer could take the conclusion that most of English teachers did not understand to implement the steps of discovery learning optimally. It was still very difficult for English teachers to be the real facilitator in teaching learning process, so that, they could not able to perform and understand to the both of those approaches. After that, the writer presented the data taken from interview. English teacher number one was using the English materials which had been gotten it from English language book as their handbook resource. While, English teacher number two, she also presented English materials to the students that was taken it from their English book and other resources to support their topic. Meanwhile, the last English teacher, he also was commonly taking the English materials into the English book, but he never made his teaching learning and students' activity in the attractive situation.

In teaching the learners, they had not been giving optimally the way how to comprehend and implement of scientific learning yet. In this case, the learners felt difficult to match themselves to get understood about the learning materials presented. Therefore, the result of study showed that, there were some differences result could be reported as follows:

In the question number one, the writer got 6 learners who take Completely Agree (CA), and then 12 learners liked to choose Agree (A), the next there were 4 of them interested in choosing Neutral (N) and both of Less Agree and Strong Disagree (SDA) were chosen by 4 learners in respectively. In the question number two, it could be explained that; respondent who chose Completely Agree (CA) was 12 students, there were 5 among students chose Agree (A), added by 3 students liked to choose Neutral (N), the rest of Less Agree (LA) got 5 students and Strong Disagree (SDA) counted as large as 4 students. The third one, the writer obtained 15 learners chose Completely Agree (CA), choice of agree had been chosen by only 4 learners, four of students were interesting to choose Neutral (N), while, there were 5 students chose Less Agree (LA) and Strong Disagree (SDA) was only 2 respondents to take it. Question number four, it described that Completely Agree (CA) was chosen by 5 learners, there were 12 students chose Agree (A) and 6 learners liked to take Neutral (N), but there were only 3 students interested to choose Less Agree (LA) and the last choice was taken by 4 learners.

Furthermore, the fifth number, choice of Completely Agree (CA) was chosen by 2 learners, choice of Agree (A) showed that there were 15 students taking on it and there were 5

students choose Neutral (N), choice of Less Agree was also chosen by 5 students, while the last choice namely Strong Disagree (SDA) was chosen by only 3 students. Question number six, the writer got 8 students choose Completely Agree (CA), it was different with the second choice namely Agree (A) where it was taken by 9 students, followed by 5 students to choose Neutral (N), and then both of Less Agree (LA) and Strong Disagree (SDA) was the same in 4 students as the respondents. In the question number seven, the writer collected 10 students to take Completely Agree (CA), while, in the Agree (A) column was obtained 7 students to choose it, there were only 3 students choose Neutral (N) and Less Agree (LA) was described as many as 7 students choose on it and finally there were 3 students keep Strong Disagree (SDA) as their option. Question number eight, it was obtained that; students who took Completely Agree (CA) was as large as 13 learners, the second choice namely Agree (A) was chosen by 4 student, there were only 2 students choose Neutral (N) and students who chose Less Agree (LA) was 7 people.

The last choice was Strong Disagree (SDA) chosen only by 4 students. The next question, there were 4 learners liked to choose Completely Agree (CA), 13 learners were happy to choose Agree (A) and the third choice namely Neutral (N) was chosen by 3 learners. While, there were each of 4 students for Less Agree (LA) and 6 learners chose Strong Disagree (SDA). The last question (number ten), the writer obtained 10 learners as the respondents of Completely Agree (CA), added by 8 learners to choose Agree (Agree) and 3 respondents were more interesting to choose Neutral (N), while, in column 4 of choice, Less Agree was chosen by 5 learners and the last choice, Strong Disagree was only chosen by 4 learners.

In viewing the description above, the writer could take the conclusion that the use of discovery learning and scientific learning approaches in the students' perception had been converted into two types such as Likert-scale positive and negative model. In the short that, this study could be taken the final conclusion that there was 61.3% for number 1, and then counted as large as 49.3% for number 2, followed by number 3 as large as 76.6%, there was 52.6% in number 4, number 5 was the same with previous number, it was obtained as large as 52.6%. The Six number, the writer got 68.6%, there was 60% in number 7, while in number 8, it was scored as large as 69.3% and closed by both of the last numbers nine and ten where it was counted as large as 56.6% for number 9 and number 10 was calculated as large as 70%.

## V. Conclusion

Based on the result of study, the writer got the conclusion that was related to discovery learning and scientific learning in students' perception of curriculum 2013. They were concluded with (a). The data which had been obtained from both of observation and interview described that teachers of English performed those approaches namely discovery learning and scientific learning, even though they could not implement it maximally and (b). According to the result of questionnaires showed that the students chose Completely Agree (CA), Agree (A), Neutral (Neutral), Less Agree (LA) and Strong Disagree (SDA) were the similar and nearly the same in percentages or score system between Likert-scale of positive version and negative ones.

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