

## The Use of Discovery-Based Learning to Encourage Students' Motivation in Classroom

**Kadek Wahyu Widana<sup>1</sup>**

Ganesha University of Education, Indonesia  
[wahyuwidana57@gmail.com](mailto:wahyuwidana57@gmail.com)

**Made Sonia Handayani<sup>2</sup>**

Ganesha University of Education, Indonesia  
[soniahandayani.sh@gmail.com](mailto:soniahandayani.sh@gmail.com)

### ABSTRACT

The students' motivation in learning English is very important, due to English language mastery. Besides, the teacher needs an effective learning method, to encourage the students' motivation in the learning process. This research aims to analyze the use of Discovery-based Learning to encourage students' activeness in the classroom. This research was an experiment. The instrument used in this study were observation sheet and motivation questionnaire. The results of this research showed that the use of discovery-based learning in the classroom is very effective to engage the learners' motivation to participate actively in the classroom. The mean score of motivation is achieved in posttest (4.17) compared to pretest (3.81). From the result of t test, the value of Sig. (2-tailed) is .041 which is lower than .05. The application of discovery-based learning is focused on student-centered activity, so that the learners can be more active in the learning process. In other words, the application of discovery-based learning is very appropriate to encourage the students' motivation to participate actively in the classroom.

**Keywords:** *Discovery-based Learning, Motivation, Students*

### INTRODUCTION

English is known as an international language in the world. As an international language, English learning also learned by many students in the world. In order to learn English effectively, the teachers already used many varieties of learning methods. The method used by the teacher to teach the students is chosen as properly as possible, in order to get better results in learning English (Flavian, 2016). On the other hand, even if the teacher already used the proper method, the success of learning English also determined by the students. The way the students understand the material delivered by the teacher will not same. They have a different learning style, especially in learning English (Bhattacharyya & Shariff, 2014). Due to their different learning style, means that all students may have different learning difficulties. One of the difficulties that might be faced by the students in learning English is about the students' motivation to be active in the classroom (Damanhuri, 2020).

Students' motivation can be interpreted as a method that can be used properly to guide the learners' English language skills mastery (Muslimin & Harintama, 2020). In learning a new language, having a strong motivation is an important thing for the learners. Due to its important function, the students'

motivation to actively participate in the classroom needs to be improved effectively. Nevertheless, there are several problems related to the student's motivation to actively participate in the classroom. Most of the students feel bored in learning English because they have no specific information about what will they get when they grow up if they learn English (Purnama et al., 2019). Also, due to boring materials delivered by the teacher made the students cannot participate actively in the classroom (Chang, 2011). In order to have better results in English learning, it is important to solve the students' motivation problem with an appropriate learning method.

It is known that using an appropriate learning method to encounter the learning problem will increase the learning results of the students (Sangsawang, 2020). In order to solve the students' motivation problem, one of the appropriate ways that can be used by the teacher is discovery-based learning. The term discovery-based learning can be interpreted as a learning method, where the students will work by themselves to seek any information about a certain topic, supported with the teacher's encouragement to obtain proper information (Feriyanti, 2018). Additionally, when applying the discovery-based learning in the classroom, the learning becomes student-centered learning, with the teacher as the guide to facilitate the students' discovery process (Sarimanah et al., 2019).

Several previous studies had identified the benefit of using discovery learning in classroom. Fatma et al., (2019) found that the use of Discovery Learning modified with Think Pair Share method can improve the students' motivation, as well as their critical thinking effectively. Saridewi et al., (2017) found that by applying discovery learning in the classroom, the students obtained a better result and their motivation in learning enhanced effectively. Additionally, the students' learning outcomes after learning using discovery learning is getting way much better. From the result of an informal observation in one junior high school in Buleleng, the teachers expressed that the students were passive during the teaching and learning. When the instructions were delivered online, students did not show motivation to study. A low motivation to actively engaged in learning will certainly affects the learning process and achievement. Therefore, this study will examine the effectiveness of discovery-based learning in motivating students to learn English.

## **METHOD**

### *Design*

The design of present study was an experiment with pretest-posttest design. In doing the pretest-posttest design, the students were given a pre-test, treatment of discovery learning, and posttest.

### *Participants*

The participants of the study were 30 junior high school students in a private school in Buleleng, Bali. They were selected by using random technique.

### *Instruments*

The instruments used in this study were classroom observation and motivation questionnaire. The motivation questionnaire was adopting a motivation learning scale developed by Clement et al., (1994). The instrument was reliability checked using Cronbach Alpha. The results showed that the value of Cronbach Alpha was .83 which indicates the instrument was reliable.

*Data Analysis*

A descriptive and inferential analysis was used to analyze the data. The descriptive analysis seeks for the mean score and standard deviation while the inferential analysis was used to identify the effectiveness of discovery learning towards students' classroom motivation (t test).

**FINDINGS & DISCUSSIONS**

Table 1 presents the result of descriptive analysis.

Table 1. Descriptive Analysis

Item	Statements	Pretest Mean Score	Posttest Mean Score
1	I enjoy learning English	4.27	4.43
2	Studying English is important to me because it helps me to know new people from different parts of the world.	2.57	3.87
3	Studying English is significant to me because I would like to learn as many foreign languages as possible	4.13	3.97
4	Studying English is notable to me because English is really important skill today	4.47	4.53
5	Studying English is prominent to me so that I can have broad knowledge	3.10	3.90
6	Studying English is worthy to me so that I can broaden perspective and point of view	4.27	4.56
7	Studying English is important to me to support my future carrier	3.00	3.83
8	Studying English is substantial to me so that I can understand English-speaking films, videos, TV, or radio.	3.90	4.00
9	Studying English is consequential to me so that I can read English books, newspapers or magazines.	4.47	4.56
10	Studying English is salient to me because I would like go visit many countries	4.03	4.06
Overall		3.81	4.17

From Table 1, it can be seen that the highest mean score in pretest was 4.47 (item 4 and 9) while the highest mean score in posttest was 4.56 (item 9). The lowest mean score in the pretest was 2.57 which is item number 2 and the

lowest mean score in posttest was 3.87 which is item number 2 as well. Overall, it can be seen that the mean score of motivation is achieved in posttest (4.17) compared to pretest (3.81).

To identify if there is a significant difference, a t test was conducted. The result of t test can be seen in Table 2.

Table 2. t test

		Paired Samples Test							
		Paired Differences							
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Pret est - Post test	- .3500	.46569	.14726	-.68313	-.01687	- 2.377	9	.041

From the result of t test, it can be seen that, the value of Sig. (2-tailed) is .041 which is lower than .05. This indicates that there is a significant mean difference between pretest and posttest. Therefore, it can be concluded that discovery learning affects students' motivation.

The result of the current study was in line with some previous studies. Ridlo and Susilo (2018) found that in compare with conventional learning, the application of cooperative discovery learning model affects students' motivation, creative thinking and achievement. They emphasize that the application of cooperative discovery learning model made the learners learn the problem delivered by the teacher properly, so that they can become more active in the classroom. Sofeny (2017) also found that students' English achievement was increased after taught with discovery learning.

Motivation is an important factor in supporting the learning process (Filgona et al., 2020). When students have low motivation, of course they will not have the enthusiasm to learn (Mauliya et al., 2020; Rashid & Akram, 2019). Teachers need to know the level of student motivation so that he is able to determine the appropriate steps to increase student motivation. One of them is using the right learning method (Odanga, 2018). In this study, discovery learning was proven to affect students' motivation in learning English. This can be seen from the value of motivation before and after the implementation of discovery learning. In discovery learning, students are not only required to work on a task but are required to solve problems, work together and find solutions (Hanafi, 2016). In its implementation, teachers are required to accompany students by providing references or inputs that help students in solving problems. In addition, the use of discovery learning helps students to learn independently and not depend on the teacher (Suratno et al., 2019). This is in accordance with the learner-centered principle where students become the center of learning and teacher as the facilitator of students' learning process (Naibaho, 2019).

The results of the current study imply that motivation is a significant factor to determine the success of students in learning English. Teachers are required to use certain method and strategies to motivate the students during learning

process. Using discovery learning is highly recommended for English teachers in encouraging students to actively participating in classroom and create positive learning environment.

## CONCLUSION

Based on the elaboration in the finding and discussion, this research concludes that the use of Discovery-based Learning in encouraging the students' activeness to participate in the classroom is very effective. Also, the use of discovery-based learning improves the students' abilities, such as their creative thinking, their learning mastery, and also their learning outcomes. In order to apply the discovery-based learning effectively, the teacher also needs to do a well-preparation, so that the results will be better. Besides, the advantages in applying discovery-based learning in the classroom are, the application is using student-centered approach, so that it will improve students' abilities effectively. Additionally, the application of discovery-based learning in the classroom will directly engage the students to be active in the classroom, with a lot of fun activities done by the students.

## REFERENCES

- Bhattacharyya, E., & Shariff, A. B. M. S. (2014). Learning Style and its Impact in Higher Education and Human Capital Needs. *Procedia - Social and Behavioral Sciences*, 123, 485–494. <https://doi.org/10.1016/j.sbspro.2014.01.1448>
- Chang, F. yu. (2011). The causes of learners' reticence and passivity in English classrooms in Taiwan. *Journal of Asia TEFL*, 8(1), 1–22.
- Clement, R., Dornyei, Z., & Noels, K. A. (1994). Motivation, Self-Confidence, and Group Cohesion in the Foreign Language Classroom. *Language Learning*, 44(3), 417–448.
- Damanhuri. (2020). Student Learning Motivation in Pandemic Time Covid-19. *Prosiding Seminar Nasional Pendidikan FKIP*, 3(1), 351–354.
- Fatma, Z., Hasanuddin, Safrida, Andalia, N., & Zulfajri, M. (2019). Progress in students' critical thinking skills and motivation based on the implementation of discovery learning modified with think pair share learning model. *International Research Journal for Quality in Education*, 6(1), 14–19.
- Feriyanti, D. (2018). Discovery Learning As a Method To Teach Descriptive Text in Building Students' Character: a Case of Seventh Grade Students of Smp N 3 Ulujami. *ETERNAL (English Teaching Journal)*, 5(2). <https://doi.org/10.26877/eternal.v5i2.2148>
- Filgona, J., Sakiyo, J., Gwany, D. M., & Okoronka, A. U. (2020). Motivation in Learning. *Asian Journal of Education and Social Studies*, September, 16–37. <https://doi.org/10.9734/ajess/2020/v10i430273>
- Flavian, H. (2016). Towards teaching and beyond: Strengthening education by understanding students' self-awareness development. *Power and Education*, 8(1), 88–100. <https://doi.org/10.1177/1757743815624118>
- Hanafi. (2016). The Effect of Discovery Learning Method Application on Increasing Students' Listening Outcome and Social Attitude. *Dinamika Ilmu*, 16(2), 291. <https://doi.org/10.21093/di.v16i2.552>
- Mauliya, I., Relianisa, R. Z., & Rokhyati, U. (2020). Lack of Motivation Factors Creating Poor Academic Performance in the Context of Graduate English

- Department Students Islahul Mauliya Resty Zulema Relianisa Umy Rokhyati. *Linguists: Journal Of Linguistics and Language Teaching*, 2020(6), 2355–2069. <http://dx.doi.org/10.29300/ling.v6i2.3604>
- Muslimin, A. I., & Harintama, F. (2020). Online Learning during Pandemic: Students' Motivation, Challenges, and Alternatives. *Loquen: English Studies Journal*, 13(2), 60. <https://doi.org/10.32678/loquen.v13i2.3558>
- Naibaho, L. (2019). The effectiveness of independent learning method on students' speaking achievement at Christian University of Indonesia Jakarta. *Asian EFL Journal*, 23(63), 142–154.
- Odanga, S. (2018). Strategies for Increasing Students' Self-motivation. *Asian Research Journal of Arts & Social Sciences*, 6(4), 1–16. <https://doi.org/10.9734/arjass/2018/41354>
- Purnama, N. A., Rahayu, N. S., & Yugafiati, R. (2019). Students' Motivation in Learning English. *PROJECT (Professional Journal of English Education)*, 2(4), 539. <https://doi.org/10.22460/project.v2i4.p539-544>
- Rashid, S., & Akram, R. (2019). Relationship between the levels of motivation and learning strategies of prospective teachers at Higher Education level. *Bulletin of Education and Research*, 41(1), 57–66.
- Ridlo, S., & Susilo. (2018). Creative Thinking Analysis, Motivation and Concept Mastery on Learning of Cooperative Discovery Model in Elementary School. *Journal of Primary Education*, 7(1), 48–56. <https://doi.org/10.15294/jpe.v7i1.21736>
- Sangsawang, T. (2020). An instructional design for online learning in vocational education according to a self-regulated learning framework for problem solving during the covid-19 crisis. *Indonesian Journal of Science and Technology*, 5(2), 283–198. <https://doi.org/10.17509/ijost.v5i2.24702>
- Saridewi, N., Suryadi, J., & Hikmah, N. (2017). The Implementation of Discovery Learning Method to Increase Learning Outcomes and Motivation of Student in Senior High School. *Jurnal Penelitian Dan Pembelajaran IPA*, 3(2), 124. <https://doi.org/10.30870/jppi.v3i2.782>
- Sarimanah, E., Dewi, F. I., Efendi, R., Suhendra, S., Nurul, M., & Soeharto, S. (2019). The Implementation of Discovery Learning Models in Enhancing Speech Script Writing Skills for Students. *Lingua Cultura*, 13(2), 145. <https://doi.org/10.21512/lc.v13i2.5613>
- Sofeny, D. (2017). The Effectiveness of Discovery Learning in Improving English Writing Skill of Extroverted and Introverted Students. *Jurnal Penelitian Humaniora*, 18(1), 41. <https://doi.org/10.23917/humaniora.v18i1.3639>
- Suratno, J., Tonra, W. S., & Ardiana. (2019). The effect of guided discovery learning on students' mathematical communication skill. *AIP Conference Proceedings*, 2194(December), 1–7. <https://doi.org/10.1063/1.5139851>