
Teacher's Perception on Teaching Strategy and Its Effect Toward Students: Discovery Learning

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Abstract

This journal aims to determine teachers' perceptions of discovery learning teaching strategies and the effects of these strategies on students because their perceptions have a very large influence on the successful implementation of learning. Teaching strategy is needed in the teaching process. With learning strategies, teachers will find it easier to determine information and manage step-by-step learning that is carried out effectively. Learning strategies are also used to make learning activities more interesting, fun, and able to arouse the curiosity of students. The subjects of this study were 7 teachers aged 30-40 years. Data was collected employing on-site interviews with English subject teachers. The types of research carried out are qualitative research through observation and interviews. The results show that the discovery learning teaching strategy as an Indonesian English teaching model recommended in the 2013 curriculum is very useful for students and learning runs more effectively because students are encouraged to be able to explore their learning materials and the effect felt by students is that they feel more challenged and motivated. Have the satisfaction of having succeeded in discovering and exploring their learning.

Keywords: Teaching Strategy; perception; discovery learning

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1. INTRODUCTION

In education at this time, teachers are under a lot of pressure to develop lesson plans that can help their students learn effectively. A teaching strategy is a technique teachers employ to present material in a way that keeps students interested and use a variety of abilities. The topic of the unit, the grade level, the number of students, and the resources available in the class can all influence the teaching methods a teacher uses. Individual perceptions and differences among teachers may have an impact on how they instruct and inspire students (Brophy & Good, 1974; Skinner & Belmont, 1993). Knowledge of teaching strategy has great importance for students. According to Lawton, a teaching strategy is a generalized plan for a lesson (or lessons) that is framework for desired learner behavior in terms of goals and an outline of planned tactics required to achieve the strategy. The solid definition came from Stone and Morris in Isaac 2010 stating that teaching strategy is a broad plan for a lesson that comprises the framework, instructional goals, and a list of planned tactics that will be used to carry out the strategy.

The target of the maximum score obtained by students has not been achieved and the lower students' learning outcomes and also low student motivation may be due to many factors including learning materials, facilities, teachers, learning strategies, and the students themselves. The learning strategies this time seem to have not been able to achieve the target learning outcomes following the expected goals. Starting from the evaluation media and especially the learning approach is not following the needs and characteristics of students.

Teachers must come up with innovative approaches or procedures that allow students to reach their full potential because they typically only use methods that confuse students. Karavas-Doukas (1995) argues that teachers' opposition to innovation can be attributed to several

factors, including their incompatibility with the innovation, their lack of sufficient training, and the failure of the innovation to take into account the reality of the classroom. However, Erik R. (2016) and Mumin S. & Sri R. (2018) demonstrate poor levels of creative thinking and learning outcomes as a result of traditional, teacher-centered teaching practices that do not provide students with hands-on learning opportunities. Therefore, Abdallah & Mansour (2015) in their research states that to be able to make students more active, understanding the principles of the education model is the key point in the education process. Teachers must implement a particular teaching methodology to get disciples more engaged. Modeling and learning strategies can provide wisdom and instruction to students.

A teaching strategy is crucial to the teaching and learning process. A teaching strategy is an underlying technique by which knowledge is created during the teaching and learning process. Furthermore, according to Takac (2008), a teacher's overall approach to helping students learn is a teaching technique. The amount of time available, the subject matter, and the student's needs will all influence the teacher's decision regarding the teaching approach. For this reason, researchers focus on teaching strategy. There are four models used in primary and secondary education in Indonesia. Using a scientific approach with inquiry-based learning, discovery learning, problem-based learning, and project-based learning was advised for the implementation of the 2013 curriculum, according to the Ministry of Education and Culture (2014), number 103 of 2014 concerning learning in primary and secondary education. But the approach of discovery learning is the exclusive focus of this study.

Although the teacher serves as a guide in the student-centered learning technique known as "discovery learning," this does not reduce

the significance of the teacher's role. The use of a discovery learning strategy can assist students in developing their abilities and self-confidence. According to Adeninawaty (2018), implementing the discovery model can promote interest in learning and inspire students to engage in the learning process. A form of model-based reasoning is something that promotes change, according to the opinion (Magnani, Nersessian, & Thagard, 1999). Students' confidence to learn independently can be increased by applying what they learn from the model. In addition to enhancing abilities, this approach has the significant side benefit of boosting students' self-confidence.

Research investigating the teachers' perception of strategy discovery learning can make students more active and make them more confident while learning. Few studies have been conducted with a focus on this issue (e.g. Daniel, 2017, Yosannia Arnaz, et al, 2021, Nusandari, 2022, Nabila Yuliana, 2018). In addition, this research places great emphasis on teacher perceptions and the impact felt by students in using discovery learning strategies, while very little has been done to investigate how students perceive the effects of these strategies. Thus, regarding the gaps in the existing literature, this study aims to investigate how teachers perceive and how students influence the discovery learning strategy. It is hoped that the findings of this study help to determine the effect of students on discovery learning strategies and can be used by teachers to improve student learning outcomes.

2. LITERATURE REVIEW

In the current technological era, teachers must be able to adjust to extremely complex technical innovations that aim to make learning more convenient for students (Hakims & Safi'i, 2021). One of the strategies or learning models that can be used is discovery learning. Discovery learning is one of the methods or learning models that can be applied. Students are expected to learn more actively, critically, creatively, and independently using the discovery learning strategy. Whereas there are many media available today to acquire learning and explore learning.

There are two key issues related to the subject of this study, namely discovery learning and the application of the discovery learning technique, and they will be discussed in turn in the following sub-chapter:

2.1 Definition of Discovery Learning

To the extent possible, discovery learning involves all students' capacities for methodical, critical, and logical searching and investigation to help them discover their information, attitudes, and skills as a means of behavior modification. Durajad (2008) defined Model Discovery learning as the learning process that takes place when students are not given the lesson in its finished form but are expected to organize it themselves. Students are free to explore the instructional resources that the teacher wants to teach them in this discovery learning technique so that they can develop their confidence and skills. Meanwhile, Effendi (2012) defines discovery learning as the purpose of developing their knowledge and skills, students engage in discovery learning, which entails problem-solving. This means that rather than requiring students to investigate learning in its ultimate form, discovery learning aims to improve students' capacity for critical, active, and creative thought through the development of skills or student learning itself. Almost similar to what Balim (2009, p. 2) said, "discovery learning is an approach that

encourages students to draw conclusions based on their activities and observations”.

According to Bell (1978, cited in Cahyo, 2013, pp. 104-105), the discovery learning technique has six goals. The objective of discovery learning is the following:

1. Students can take an active role in their education
2. Students learn to see patterns in both tangible and abstract settings and to predict new information.
3. Students learn how to use questions and answers to obtain relevant information as well as how to ask and answer questions coherently.
4. Students learn effective methods for cooperating in teams, exchanging information, and utilizing others' ideas. Much evidence shows that the knowledge, skills, and principles gained through discovery are more important.

Furthermore, Hammer (1997, p. 485) also thought of discovery learning as a learning process that enables students to draw conclusions based on their own experiences and observations. Additionally, Mahmoud (2014) used a discovery learning technique to help students with their English. He thought that using this technique would help language skills.

According to the experts' thoughts expressed above, it can be concluded that students will become independent learners who are not dependent on the teacher's instructions and directions. With the use of discovery learning strategies, students engage in an active learning process where the teacher does not initially provide them with the subject matter through direct instruction and makes them active in a classroom.

Students are required to be able to solve the problem on their own during this strategy process.

A discovery learning approach encourages students to discover ideas by using a variety of knowledge or data that they have gathered through experimentation or other forms of observation. It was stated in Regulation of the Minister of Education and Culture of the Republic of Indonesia number 103 of 2014 concerning Learning on Primary and Secondary Education that it is strongly advised to use a scientific approach with learning models such as inquiry-based learning, discovery learning, project-based learning, and problem-based learning when implementing the 2013 Curriculum. (2014: 638). Sani (2014: 97–98) defines discovery learning as an inquiry process.

2.2 Application of Discovery Learning Strategy

According to Kemendikbud (2013), there are six steps in the discovery learning method: producing stimulation, defining issue statements, collecting data, analyzing data, confirming data, and creating a conclusion or generalization. Application discovery learning aims to change passive learning into active and imaginative learning. Changing the teacher's focus from student learning to student focus. Change from the expository method, when students only receive the whole information from the teacher to the exploration mode, where students must locate the information themselves.

The discovery learning model's three key components are activities to combine new and accumulated knowledge, student-centered learning, and problem-solving activities to develop, connect, and generalize knowledge (Kristin, 2016: 92). Aunurrahman claims (Dari & Ahmad, 2020) that choosing and using the proper learning model can promote the development of enjoyment, boost motivation, enhance critical thinking

abilities, and make it simpler for students to comprehend lessons, all of which can help students achieve good learning outcomes.

The Discovery Learning approach to education aims to motivate pupils to focus on finding out topics (Rosdiana et al., 2017). The stages of discovery learning include presenting a stimulus, identifying an issue, gathering data, verifying it, and drawing conclusions (In'am&Hajar, 2017; Riandari, et al., 2018).

To ensure that learning through discovery learning strategies works properly, some actions must be taken. Accordingly, Darmadi (2017) explains that:

“Lists the steps for implementing the discovery learning model, including (1) determining learning objectives; (2) determining student characteristics; (3) determining the material lesson; (4) determining the topics to be studied inductively; (5) developing materials by providing examples, illustrations, assignments, and other learning tools; and (6) organizing lesson topics starting from simple to complex, from concrete to abstract, and from the enactive, iconic, and symbolic stage; an example of this is the order in which students should learn”. Darmadi (2017: 113-114)

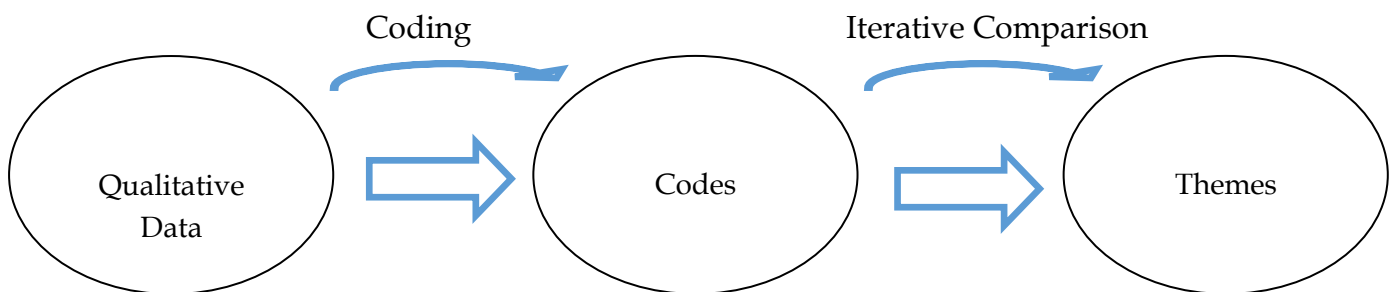
The following steps should be followed when applying the discovery learning model, according to Shah (in Darmadi, 2017: 114–117): (a) stimulation (providing stimulation); (b) problem statement (problem identification); (c) data collection; (d) data processing; (e) verification; and (f) generalization (conclusion).

In this study, the researcher observed that students feel more challenged by discovery learning which makes them learn independently but is still directed by the teacher and given good feedback. The opportunity to receive feedback during the learning process is an essential

component of discovery learning (Bonwell, 1998). This discovery learning technique is effective for producing positive learning outcomes and encouraging students to be more engaged, creative, and critical thinkers.

3. METHODS

This study uses qualitative data through observation and interviews because the purpose of this research is to observe the results of the interviews conducted. Observation was used in this study to observe and review carefully and directly at the research location and in-depth interviews were used to find out more detailed information. The Data was collected employing on-site interviews. The interview was carried out by inviting 7 teachers aged 30-40 years who are English subject teachers. The interview questions are a basic question on about teacher's perception of teaching strategy discovery learning and its effect on students. The interview took 11 minutes and 46 seconds. Thematic analysis was applied in this study's data analysis. Thematic analysis, a technique used to examine data to identify patterns or themes within data that researchers have collected, has gone wrong (Braun & Clarke, 2006). This method can be illustrated in the diagram below:



4. FINDING AND DISCUSSION

4.1 FINDING

The objective of this study was to investigate teachers' perception on teaching strategy discovery learning and its effect toward students. The data collected in this study could be categorized in two: observation and interviews.

4.1.1 Demographic of Respondents

This descriptive analysis is based on research data that has been collected, in the form of responses obtained from 7 respondents teacher's perceptions of discovery learning. The collected research data was transformed in the form of a numeric table so that it is easy to understand and interpreted. Descriptive analysis is used by researchers to provide information about the demographic of the respondents. Here are the results descriptive analysis among others:

Table 4.1 The results of data analysis based on gender and age

Gender	Age	Frequency
Female	38	1
Male	40	1
Female	39	3
Female	35	1
Female	37	1

Based on Table 4.1, it can be seen that from 7 respondents who were male aged 40. That is 1 person while for respondents who were female 6 frequency. This number indicates that the majority of teacher's perceptions of discovery learning are the sample size this study are women.

In this study, observations were taken to describe the environment, the activities that took place, the participants, and the interpretation the

observed actors gave of the relevant occurrence about teachers' perception of teaching strategy in this research.

After our group went down to the school to make observations of one of the schools in Medan, we obtained data and information from the resource people, namely teachers who are teachers of English subject. The conversation that we went through was related to the collection of the teacher's perception on teaching strategy discovery learning and its effect toward student's data and we continued by conducting interviews.

4.1.2 Teacher's Perception

From the outcomes of our observations, we discovered that the teachers' perception of the teaching strategy was quite effective. Some teachers had begun using discovery learning teaching strategies because they claimed that one of the discovery learning teaching strategies was very beneficial, and students felt a lot of influence, causing them to feel more confident, enjoy learning English more, and learn more from the numerous learning videos in this technological era. Students are encouraged to take greater responsibility for themselves through discovery learning to demonstrate their abilities.

Based on the results of interviews conducted with teachers. Interviews to measure teachers' perception of teaching strategy discovery learning and effect on students were only conducted once that involved 1 school and 8 teachers. There are 3 interview questions given related to teachers' perception on teaching strategy. Interviews were conducted face to face. Based on the results of interviews that have been carried out, the teacher also permits students to use cell phones in the classroom to search for the content being taught, find, and solve their difficulties. Many students receive benefits and satisfaction since they have succeeded in investigating their instruction.

1. Discovery learning has many benefits for students. It encourages active engagement from students, promotes motivation, promotes autonomy, responsibility, and independence, develops creativity and problem-solving skills, and provides a tailored learning experience for that student. Following the interviews we conducted, the teacher stated that *“I incorporate discovery learning into my lessons because there are so many benefits to doing so, therefore I tried to do it for my students”*.
2. Students are more confident when using discovery learning strategies and can learn independently. Because the learning process can be adjusted to the child's learning speed so that learning activities become more meaningful for children. The teacher stated that *“I use it by instructing them to read, after which they ascertain for themselves what they have learned from what they have read. I have also used this technique on numerous occasions by forming groups and instructing them to present, after which I simply observe and make no judgments about what they did correctly or incorrectly. I enjoy it when something is right, so I just reaffirm it”*.
3. Using the Discovery Learning model, you want to change passive learning conditions to be active and creative. Changing teacher-oriented learning to be student-oriented. Discovery learning strategies make students more independent, responsible, and able to develop their skills. A teacher interviewed added that *“This discovery learning method works because they are more independent and also have more responsibility for themselves to demonstrate their talents. When what they say is true, they become proud because it turns out that they discovered it themselves without being told it was more valuable”*.

4.2 DISCUSSION

Initial observations were carried out to see the teachers' perception on teaching strategy and its effect toward students. Observations were made on the spot and asked questions about teachers' perceptions on teaching discovery learning strategy. Based on the results of observation obtained that the discovery learning. Discovery learning is very beneficial for students because it increases their learning ability. Influence their skill development, be more responsible in learning, increase their confidence, and make them enjoy learning English. So it can be said that the discovery learning teaching strategy has a very good influence on improving their learning outcomes and developing their skill.

Thus, the researchers also used interviews to make the data more valid. Based on the results of the interview that had been carried out, because most students experience a great deal of positive impact and favorable influence from discovery learning procedures, these teaching strategies are very effective. The use of discovery learning, according to the teachers the researcher spoke with, also helped children develop a greater sense of responsibility. The teacher simply observes while the students research the answers on their own; if the answer is correct, it will be appreciated; if it is incorrect, it will be pointed out so that it can be improved. Learning in this way is very beneficial because it not only boosts students' feelings of responsibility and self-confidence, but also encourages them to be more active, creative, and critical thinkers. This result is related to Hanafiah and Suhana (2009), who states that "a learning activity that best utilizes each student's capacity for systematic, critical, and logical study and investigation so they can discover their information, attitudes, and skills as a strategy of behavior change". Thus, in discovery learning, students actively participate. Learning is actively searching out new information rather than merely absorbing what is read

or spoken. Through hands-on exercises, students are solving problems from the real world. Howard and Mosca, (19997).

5. CONCLUSION

This study has explained how the influence of discovery learning tactics for students. Discovery learning is extremely good to employ to achieve good learning outcomes for students. Students that have had the teaching technique implemented by the teacher are more assured, responsible, active, creative, and critical thinkers. Discovery learning should therefore be thoroughly examined in future studies.

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