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AN INNOVATIVE STRATEGY IN LEARNING ENGLISH AS A FOREIGN LANGUAGE

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Abstract

The present study aimed to delve into the students' EFL vocabulary and response to the discovery learning strategy. A pre-experimental research design was applied in this study. The population of this study was first-year Sulawesi Barat University students who enrolled in vocabulary courses in the first semester, and the researchers used a random sampling technique to choose 42 students. This study found that the discovery learning strategy elevated the students' English vocabulary. It was found that there are critical contrasts between the mean scores of the pre-test and post-test. The students' pre-test score was 63.42, and the understudies' post-test score was 89.09, which is higher than the pre-test score. It demonstrated a critical improvement in students' accomplishment after carrying out revelation learning in instructing English vocabulary. Another result revealed that the students provided positive responses toward applying the discovery learning strategy in learning vocabulary, stated 53% of students agreed and 33% strongly agreed with the strategy, however 10% neutral, 3% disagreed and 1% strongly disagreed. Based on positive responses, the most of the students perceived that the discovery learning strategy benefits them in learning English.

Keywords: *Discovery Learning, Perception, Strategy, Vocabulary*

Introduction

Students encounter numerous challenges when attempting to acquire English vocabulary as a foreign language, one of which is a deficiency in the learning process (Sholeh et al., 2021). The learning system sawed it, and students are less urged to foster their basic reasoning abilities. Conventionally teaching English is aimed at the students' capacity to understand the knowledge. The students' cerebrums are

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compelled to recollect and accumulate new information without thoroughly understanding and applying it daily (Sari Nurza et al., 2021). Hence, teachers play an essential role as facilitators in teaching to form students' mindsets and understanding, particularly in English as a foreign language. English teaching-learning is required to effectively engage with the learning cycle (Kakar et al., 2020), and the materials should also be appropriate and easy to understand (Asrifan et al., 2017).

Moreover, foreign language learning was seen essentially as a psychological phenomenon. It simply means that it is related to behaviorist theories, i.e., a theory of learning that expresses all practices learned through communication with the climate through an interaction called molding (Cohen et al., 2014). The teachers might enhance language learning by matching methodology to cognitive type. Further explanation that successful and unsuccessful strategy deployment may be linked to strategies other than a learning and proficiency level stage (Cohen et al., 2014). It was claimed that working memory limitations might influence deployment because the students cannot do enough cognitive processing simultaneously. Besides, the students may lack the linguistic resources to deploy specific strategies. Lastly, they may not be motivated to deploy a full range of techniques in combination (Cohen et al., 2007). The learning strategy corresponding to the subject matter determines students' success in understanding the lesson (Fernandez et al., 2022). That is why choosing an appropriate strategy for learning has become necessary, especially in English as a foreign language. In the vocabulary learning process, learning strategies determine the success of English learning (Yos et al., 2020). One strategy attempted in learning English is discovery learning (Rafiqa, 2022; Rafiqa, Aswad, et al., 2023; Rafiqa & Munawir, 2017).

Discovery learning is categorized as inquiry-based instruction related to a constructivism theory based on education. It is known that constructivism theory emphasizes students being active in the teaching-learning process (Feriyanti, 2018; Rafiqa, Sabil, et al., 2023), which refers to the teaching-learning approach, i.e., student-centred learning (Kusumawardhani et al., 2019). This theory views students as building their understanding of their own experiences gained from interaction with

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the environment where they are involved. Moreover, inquiry-based orientates on student learning outcomes and the learning process in discovery learning encourage students to conclude what they are learning based on their activities and observations designed (Ozdem-Yilmaz & Bilican, 2020).

Discovery learning appears as one good strategy for teaching EFL. There have been many scholars who conducted a study related to discovery learning (Cahyani & Yulindaria, 2018; Junizar & Sudiyono, 2020; Sofeny, 2017), they claimed that discovery learning effectively teaches English as a foreign language (Isnardiantini et al., 2019; Purwaningsih et al., 2020). Additionally, the use of discovery learning also builds the students' basic reasoning (Kusumawardhani et al., 2019; T. Martaida et al., 2017). Further expand upon this, some reasons for the discovery learning as an innovative strategy are utilized in current teaching: First, it fosters an active type of showing understudies. Second, by finding and exploring the ideas examined, the outcomes acquired will be dependable in memory and not effortlessly forgotten by understudies. Third, self-created understanding is wholly dominated and simple to utilize or move information in different circumstances. Fourth, by using disclosure methodology understudies figure out how to defeat one of the analytic techniques that will want to be created all alone. Finally, understudies figure out how to think and attempt to tackle issues without help from anyone else systematically, these propensities will be moved of theirs (Eggen & Kauchak, 2016; Indrayati et al., 2021). Therefore, discovery learning is known as dynamic learning since students are more interested in the learning system than latently getting information. Students are unfilled vessels to be filled by the teacher. Such kind of teaching and learning process also helps the teachers construct and elaborate their teaching-learning activities based on the discovery learning, especially in teaching English as a foreign language (Junizar & Sudiyono, 2020; Kusumawardhani et al., 2019). Concerning those reasons, discovery learning is a teaching strategy recommended in the 2013 curriculum by the ministry of education (Feriyanti, 2018; Kusumawardhani et al., 2019).

Based on the fundamental reasons above, some researchers have attempted to apply discovery learning in teaching language. They tried to let the students

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question and discover the target language to construct their system of its meaning and how to use it. This strategy emphasizes collaboration between students and the teacher's proper scaffolding to produce students' most independence (Johnson, 2016; Jong, 2014). Discovery learning also motivates all language instruction to encourage correspondence and permit the understudy to be a free language client.

Due to the explanations above, many scholars have studied discovery learning in many areas. Several articles from International journals provide the research results about using discovery learning in presenting their material as conducted by (a) Gholamian studied the effect of guided discovery learning on reinforcing the creative thinking of sixth-grade girl students in Qom (Gholamian, 2013); (b) Gijlers & De Jong investigated how prior knowledge influences knowledge development during collaborative discovery learning (Gijlers & De Jong, 2015); (c) Mahmoud investigated the impact of using discovery learning strategies in teaching grammatical rules to develop their achievement and metacognitive skills (Mahmoud, 2014); and (d) Alfieri and colleagues did research discovery-based instruction enhance learning (Alfieri et al., 2014).

In Indonesia, some research on discovery learning has been conducted in several areas as in (a) Kusumawardhani et al. empowering students' creativity and critical thinking through discovery learning-based writing assessment (Kusumawardhani et al., 2019); (b) Hanafi investigated the effect of discovery learning method application on increasing students' listening outcome and social attitude (Hanafi, 2016); (c) Martaida et al. researched about the impact of the discovery learning model on students' critical thinking and cognitive ability in junior high school (T. T. Martaida et al., 2018); (d) Rafiqa et al. revealed that Cultural Discovery learning Model evolved learners autonomy and speaking skill (Rafiqa, Aswad, et al., 2023). This study, however, concerned on the vocabulary enhancement through discovery learning as an innovative strategy.

Review of Literature

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In the education context, almost all activities are learning. Psychologists explained how the study takes place differently. Nonetheless, certain inquiries can be classified as such: effective learning invariably ensues with specific advancements shaped by cognition and practice. Thus, learning activities are to gain success in developing one's potential. There are some psychological aspects of learning activities, such as motivation, skills and science, psychiatric development, etc. That at any time in life, there must be a learning process, whether intentional or not, realized or not. From this process is obtained an outcome, which is generally referred to as the result of learning. However, the learning process must be approached with conscious, deliberate, and meticulous organization to get the best possible outcomes. On this basis, the learning process contains meaning: the process of internalizing something into the subject of education, done consciously and actively, with all five senses playing a role.

Actual and prospective behavioral changes result from the learning process; an evolution is, in essence, the long-lasting application of a newly acquired capability. A transformation transpired in the endeavors (Schunk, 2012). Learning is the act of behavior, and it looks like reading, watching, listening, imitating, some activities (Ozdem-Yilmaz & Bilican, 2020; Pritchard, 2009; Singer et al., 2003). Learning is a series of human activities concerning understanding, hearing, and imitating to gain a new experience or science. Learning is also defined as a continuous change in ability stemming from students' knowledge and interacting with the world. Learning criteria include learning involving change, wisdom endures over time, and learning occurs through experience. Moreover, learning can be seen based on micro aspects, broad and specialized. In a macro aspect, broad, learning can be interpreted as activity towards intact personal development. The study's bloom covered three scopes: cognitive domains related to memorizing knowledge and intellectual growth, affective domains relating to interests, attitudes and values, and the development of appreciation and adjustment. Psychomotor domain behaviors demand neural coordination (L. O. Wilson, 2016).

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Those mentioned above are derived from the learning theory, which posits that learning is a sequence of deliberate actions an individual performs, culminating in transforming said action into acquiring further knowledge or expertise grounded in experience and the senses. The learning process can produce changes in each individual where a change is in the form of behavior (Sukma, 2022). Change that can occur in each individual is obtained from his own involvement with connection with the climate. These progressions increase knowledge and substantial ability, skills, attitudes, behavior, mindset, personality, and act.

Furthermore, there are three contemporary thoughts about learning: active participation/engagement, learning as a social wonder, and learner differences as opportunities, not barriers to conflict (S. M. Wilson & Peterson, 2006). First, learning as a process of active engagement emphasizes that understudies are dynamic constructors of their insight. For instance, they actively compose meaning formation when reading documents, interacting with the environment or speaking with others, and actively understanding knowledge. Second, learning as a social phenomenon means both individual and social learning. It gives excellent freedom to understanding the social environment through discussion, conversation, joint work, and discussion and assumes a fundamental part. At long last, students come from various encounters, limits, understandings, and foundations. Educators needed to figure out how to manage the unavoidable contrasts that understudies bring to school. Student contrasts as fortunate circumstances imply that understudies are assets to be tapped, not deterrents to survival (S. M. Wilson & Peterson, 2006).

Students are encouraged to study data and ideas, build upon existing knowledge, and apply new practices through the revolutionary instructional approach known as discovery learning (Maheshwari, 2013). Discovery learning is a constructivist learning theory that occurs in problem-solving situations based on requests. The student utilizes their prior experience and existing knowledge to uncover truths, establish connections, and acquire new knowledge (Ozdem-Yilmaz & Bilican, 2020; Rafiqa, Sabil, et al., 2023). Understudies engage with the world through the process of examining and manipulating objects, struggling with inquiries and disputes, or doing

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experiments (Aldalur & Perez, 2023; Arifien et al., 2022). Consequently, understudies are more likely to retain concepts and knowledge discovered independently (Sofeny, 2017).

In the discovery learning strategy, the educator gives guidelines where the understudies get information that they did not already know was not through notice, somewhat or totally located himself. In finding exercises or learning planned in such a manner, understudies can discover ideas and standards through their own psychological cycles. In discovering thoughts, understudies mention objective facts, characterize, make surmises, clarify, reach determinations, and find a few feelings or standards (Singaravelu, 2012). Understanding Discovery Learning is additionally described as figuring out how to get ideas, implications, and connections through a natural cycle. Revelation happens when people are involved, particularly utilizing their psychological procedures to discover a few thoughts and standards. Discovery involves observation, classification, measurement, prediction, and determination. In the idea of learning, discovery learning is the process of organizing things into groups or ideas that can then be used in other situations. Bruner's theory of categorization is used in the discovery learning approach. The formation of types, or coding systems, is what is meant by "discovery." In this way, groups and coding systems are built around the commonalities (and distinctions) between objects and occurrences (Johnson, 2016; Schunk, 2012; Smaldino et al., 2011).

The cognitive model of learning, which focuses on the mental processes involved in information acquisition, is the general hypothesis upon which this method is based (Bayharti et al., 2019). According to this paradigm, the main purpose of learning is to integrate additional information into an already established structure of student associations. It is accomplished by establishing or renovating new organizations to accommodate the most up-to-date information (Samputri, 2020). To do this, the student continually observes new data and checks in memory for related plans to make associations. If no related thoughts exist, unique; however, too shaky organizations are shaped utilizing whatever connections to earlier information can be made. The fundamental idea of learning through discovery Learning involves the

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delivery of resources or knowledge that is not yet in its final form. However, students are urged to determine their areas of interest, independently gather information, and subsequently structure and consolidate their knowledge and comprehension into their last presentation (Schunk, 2012; Smaldino et al., 2011).

An expert has identified five attributes of discovery learning that make revelation taking in not quite the same as customary learning models. The five features or attributes, according to him, are as follows (Johnson, 2016). First, learning is dynamic, and students ought to participate in involved and critical thinking exercises instead of moving information from educators (Alnofal, 2018; Ozdem-Yilmaz & Bilican, 2020; Yerimadesi et al., 2019). The second, discovery learning adapting joins significance to the learning system, not exclusively to the item or learning results, subsequently prodding authority and the utilization of recently obtained information or applying it to new circumstances (Setyaningrum et al., 2020). Third, learners will gain from their errors, and in disclosure learning, they will become marvelous and keep searching for vital critical thinking (FAUZI & RESPATI, 2021; Rahardjanto et al., 2019). Fourth, feedback is fundamental to revelation learning, while joint effort and conversation will further develop students' understanding. Finally, discovery learning has the potential to satiate the inherent and ever-present human curiosity (Arianda & Anhar, 2018; Korres, 2019; Setiawan & Istiqomah, 2018).

Active student interaction with ideas and principles is the primary means by which students are encouraged to learn by exploration (Chen et al., 2022). Besides, in discovery learning, students learn how to solve problems independently and think skills because they must examine and gather the data. However, during this exploration phase, students receive assistance or guidance from professors to ensure a more focused approach, thereby ensuring that both the learning process and the acquired objectives are executed accurately. The teacher's recommendation is to assist so that students can understand the purpose of the activities carried out and directions about the working procedures that need to be carried out in the learning activities (Setianingrum & Wardani, 2018).

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The discovery learning strategy has three main phases: preparation, implementation, and evaluation. The preparation phase consists of several parts, i.e., determining the learning aims, identifying the students' interests and learning styles, and choosing the subject material. The implementation phase comprises incitement, recognizing the material issue, gathering the information, handling the data, checking the information, and making a conclusion. The last is the evaluation phase, conducting assessment in applying discovery learning can evaluate the knowledge, skills, attitude or evaluation of the student's work (Rafiqa, Aswad, et al., 2023).

Method

This study used a pre-experimental design. Pre-experimental design is the only type of research that can test hypotheses to establish a cause-effect relationship (Creswell, 2018). In this study, the researchers manipulate at least one independent variable and observe the effect on one dependent variable.

It was applied on Universitas Sulawesi Barat, Majene regency, West Sulawesi Province. The population of this study was freshman university students of the English Education Department that enrolled in a vocabulary course in the first semester. The total number was 98 students. The sample was taken using a random sampling method, and there were 42 students chosen as a sample for this research.

There were two instruments used in this study. The first instrument of this study provided 15 items vocabulary test for English students. This instrument was adapted from English Vocabulary Test for Upper-Intermediate Level. The Upper-Intermediate English vocabulary test was relevant to the students' level. This instrument is used as a tool to gather data about the students' achievement after applied discovery learning in the teaching-learning process. The second instrument was a questionnaire. This instrument collected data related to the students' perception of utility discovery learning strategy in teaching English vocabulary. The questionnaire utilized for this study was initially adapted from a researcher from Universitas Kristen Indonesia (Tampubolon, 2018). Then, it was modified to be more considerable according to the context of this research.

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The procedure of collecting data revealed three phases. The first was pre-test, this phase was conducted before the researchers taught English to the students using a discovery learning strategy. It aimed to measure the students' vocabulary achievement. The second was treatment. In this phase, researchers applied discovery learning in English vocabulary class during six meetings, for each session spent ninety minutes. The third was post-test. The researchers conduct a post-test to measure students' achievement after learning using the discovery learning strategy, the last phase. Additional data collected is asking students to answer the questionnaire.

The first data analysis used the statistical technique T-test. The application of IBM SPSS Statistics was used to analyse that data. Based on the result of data analysis, it would decide whether the null hypothesis is rejected or receptive. At the alternative hypothesis of this research, there is a significant elevated of utilizing discovery learning strategy toward the students' English achievement. While the null hypothesis is no significant increase in using discovery learning strategies toward students' English achievement. The margin error is at 0.05 level. The IBM SPSS Statistic application analysed the second data from the questionnaire, and it was supplemented by Microsoft Excel to tabulate the data in table percentage and chat form. IBM SPSS statistics as a tool for data processing of this study, the result of data analysis reveals descriptive statistics, the test of normality, and paired samples Test.

Results

The data analysis results describe each stage tet's mean score and standard deviation. IBM SPSS statistics as a tool for data processing of this study, the result of data analysis reveals descriptive statistics, the test of normality, and paired samples Test There is a substantial disparity in the average score of the pre-test and post-test. The pre-test score of the students is 63.42, while the post-test scores are 89.09, indicating an increase compared to the pre-test score. An increase in student scores from the pre-test to the post-test indicates that the discovery learning strategy improved the English students' academic performance.

The pre-test had a standard deviation of 5.61, indicating that the majority of students' results clustered around 63.42. The standard deviation of the post-test is

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3.39, indicating that the majority of students received scores close to 89.09. The standard deviation indicates that the majority of students' scores are in close proximity to the mean scores of the pre-test and post-test.

Table 1. Descriptive Statistics

	N	Mean	Std. Deviation
Pretest	42	63.4286	5.61419
Posttest	42	89.0952	3.39878
Valid N (listwise)	42		

Assumption testing in which the T-test examines the truth or absence of a hypothesis in a population by comparing the means of two samples. Based on the T-test result below, the hypothesis alternative is receptive since the significance value of the pre-test and the post-test is 0.001 less than the alpha value of 0.05. It evidences a significant elevated of utilizing discovery learning strategy toward the students' English vocabulary achievement. Finally, the null hypothesis is rejected, there is no substantial improvement observed in students' English vocabulary achievement through the use of discovery learning strategies.

Table 2. Paired Samples Test

		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				One-Sided p	Two-Sided p
					Lower	Upper				
Pair 1	Pretest – Posttest	-25.66667	5.83374	.90017	-27.48459	-23.84875	-28.513	41	<.001	<.001

Furthermore, this study was equipped by the data of students' perception of discovery learning in English class. The figure below provides the percentage of students' perception of implementing discovery learning.

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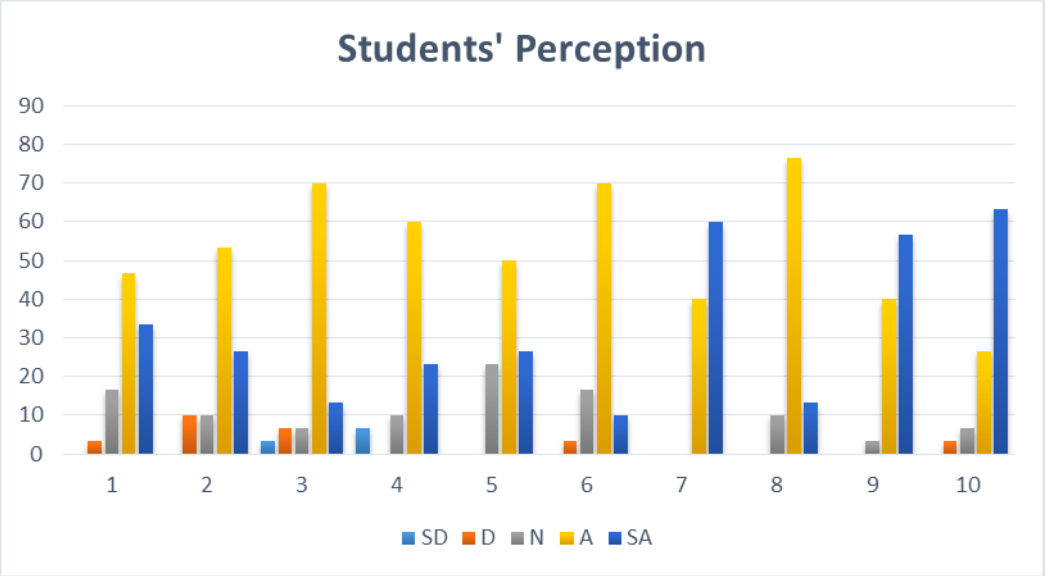

Figure 1. The students' perception of discovery learning

The first item scale presents that 3% disagreed that discovery learning English class can make students more interested in learning. There were 17% provided a neutral response, and 47% and 33% agreed and strongly agreed that discovery learning is a more exciting strategy. Moreover, the figure above showed that students enjoy the learning process. There were 27% strongly agreed, and above 50% agreed. It aligns that 80% enjoyed the teaching-learning process using discovery learning. Meanwhile, 10% disagreed, and 10% were neutral. It means that few students did not enjoy learning using discovery learning.

Students perceived that discovery learning helped them to find new vocabularies. The data above provides that 70% and 13% agreed and strongly agreed that discovery learning based-instruction was helpful to students in elevating their vocabulary. However, strongly disagreed that discovery learning can increase their vocabulary. The following data about the percentage of the item discovery learning can develop the students' creativity in learning, 7% confess that discovery learning did not develop their creativity in learning productive skills. But 23% and 60% strongly agreed and agreed that discovery learning has a role in boosting creativity.

Furthermore, discovery learning can improve the students' knowledge. The data revealed that 23% chose neutral on this item scale. Opposite the previous choice, 50% agreed that discovery learning based on instruction could develop their

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knowledge, and 27% strongly agreed. This data proved that most students recognize this strategy could improve their new knowledge. Discovery learning made students easy to find some information. Based on questionnaire data, 10% and 70% strongly agreed and agreed that implementation of discovery learning in learning English helps them gain additional information. 3% disagreed, and 17% chose neutral. It means that only a few students did not easily get new information through implementation discovery learning based-instruction in learning English.

All students admitted that the implementation of discovery learning in learning English makes students more active. The data showed that 40% and 60% agreed and strongly agreed. This data implies that all students were busy in the learning process, so no student kept calm and did not do anything during the learning process.

Discovery learning makes students more serious. The strongly agreed students amounted to 13%, and 77% agreed they felt more serious and focused in the learning process. Moreover, 10% were neutral. They did not feel more serious about the learning through implementation of discovery learning based-instruction in learning English. Moreover, the implementation of discovery learning could increase students' critical thinking. The data reveals that 40% and 57% agreed and strongly agreed that their critical thinking elevated. And no more students perceive that implementing discovery learning did not increase students' critical thinking. However, 3% were neutral on it. Discovery learning base-instruction can increase students' motivation in learning. 27% and 63% agreed and strongly agreed that implementing discovery learning motivated students in learning. Even though 7% were neutral, 3% perceived that implementation of discovery learning not motivate them to learn English.

Based on questionnaire data above, figure below reveals recapitulation of students' perceptions.

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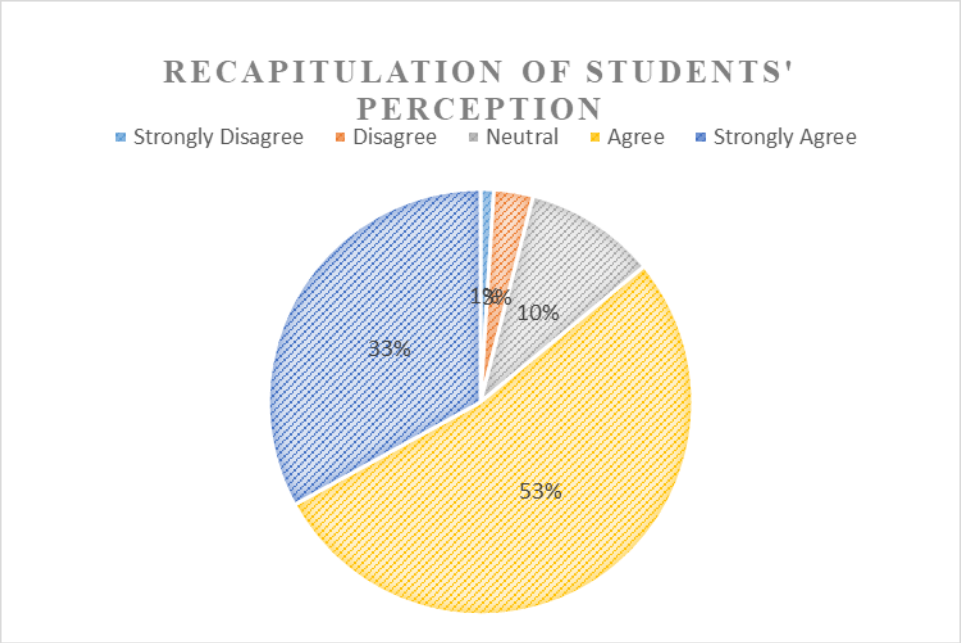

Figure 2. Recapitulation of students' perception

The above figure shows that most of the students positively responded to implementing the discovery learning based-instruction in the English teaching-learning process. The data showed the average students perception was 53% agreed, and 33% strongly agreed with the strategy. Based on positive responses, the students perceive that discovery learning benefits them in learning English. Moreover, 10% chose neutral in this study. On the other hand, some students also chose negative responses where 3% disagreed and 1% strongly disagreed if discovery learning is an exciting strategy in learning English.

Discussion

Findings above illustrates that discovery learning in English learning elevated students' English vocabulary achievement. Aligns to this statement, Singaravelu finds that Obtaining grammatical competence in English is more successfully accomplished through the utilisation of discovery learning (Singaravelu, 2012). Moreover, utilising discovery learning to its full potential for extroverted kids as opposed to introverted ones (Sofeny, 2017). Subsequently, the findings suggest that the use of explicit instruction is more effective for introverted students than to extroverted individuals. The repercussions of utilising discovery learning have a greater impact on extrovert students compared to introvert pupils (Sofeny, 2017). Improving one's capacity for

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self-discovery is another potential outcome of implementing the discovery learning system. Changing from a state of passive learning to one of engaging and innovative learning is possible through the use of a discovery learning technique. Switch from a focus on the teacher to one on the students. As soon as the student switches from receiving the instructor's broad material in "Expository Mode" to "Discovery Mode," the learner begins to build on what the teacher has already taught (Johnson, 2016).

Furthermore, the students argued to agree that discovery learning is an exciting strategy in learning English, and they agree that it is also making students enjoy the learning process. Moreover, the discovery learning also helps students find new vocabularies (Junizar & Sudiyono, 2020) and develop their creativity in learning English. Then the students agree that it can help students improve their knowledge and help students find more additional information. Besides making students active in learning and serious in learning English, it is evidenced by dominant students agreeing with it. Most of the students agree that discovery learning based-instruction elevates their critical thinking and motivation to learn English ((Balım, 2009; Fadilla et al., 2017; Kusumawardhani et al., 2019; Lukitasari et al., 2020; T. Martaida et al., 2017; Rahmadhani et al., 2021; Sari Nurza et al., 2021; Widoretno & Dwiastuti, 2019). It aliens to research from Martaida et al. and Lavasani et al. that discovery learning based-instruction better increases the students' critical thinking in learning than students taught in the conventional way (Lavasani & Faryadres, 2011; T. Martaida et al., 2017). However, some students were neutral and few of them disagreed, since, they did not easily get new information and not enjoy the learning process. Even, some students felt it but overall students agreed because they got many benefits.

Historical learning, which uses discovery learning, has improved students' critical and scientific thinking skills, mainly to help them find problem-solving. The student's critical thinking skills will be beneficial in their everyday life and for the life to come. These principles and foundations become one of the learners' references in actualizing their analytical and critical thinking skills daily. The ability to think rationally and critically can be a significant competency in developing the logical power to understand the idea of a problem. Logic as a logical way of thinking is a skill to solve

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problems. These skills are demonstrated by scientists and other professionals whose work depends on thought.

The students agree that discovery learning is beneficial for the students in the learning process. Students generally state that learning is exciting and easy to do, guiding students in discovering, identifying problems, and drawing conclusions (Raharjo et al., 2019). It can be concluded that the students more easily understand the materials taught, especially in their skills, because discovery learning has positively impacted the students (Mufida et al., 2015).

The students were very active in learning using discovery learning. Learning using discovery learning continuously could help the students build their character (Feriyanti, 2018). Furthermore, Discovery learning fosters student independence, also known as the "heuristics of discovery," which refers to the process of discovering things on one's own. It also encourages students to be creative when it comes to problem-solving. Discovery learning can be more motivating than other types of learning because it incorporates the delights of solving problems and influencing an environment. Discovery learning development has been found to be aided by learning in the scientific field (Brown, 2006).

They are compelled to formulate a response when they are actively participating in their own learning opportunities. The end effect is that pupils learn how to learn, which leads to a more profound processing of knowledge than can be achieved through simple memory. Students are able to receive early feedback on their level of comprehension through the use of discovery learning. Their knowledge gaps are not something that can be disregarded(Simatupang, 2020). Concepts are ‘eventual’ for students, but the gradual method reinforces and rediscovered them. As opposed to the criticism, indirect lessons are self-directed and self-managed using children's ideas and many questions from the teacher. Reaction to students' answers prompts more questions that clarify information and boost accomplishment. Discovery Learners develop "episodic memory," a deeper memory specific to an experience, so they can recreate an idea or technique if they forget it (Brown, 2006)

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Discovery learning with a scientific approach encourages students to solve problems actively and able to improve students' critical thinking skills with the scientific method so the student can build scientific thinking, including observing, asking, reasoning, trying, and networking (Nurcahyo et al., 2018). Discovery Learning makes teaching fun, and if the kids are learning and having fun doing it, then teachers also enjoy their work more. Without discovery learning, students must rely on memory and abstract thought, which restricts learning in most students.

Moreover, the usage of this learning strategy in current teaching-learning is discovery learning because of some reasons. The first, it is a way of fostering an active type of learning understudies. The second reason is by finding and exploring the ideas contemplated, the outcomes acquired will be durable in memory and not handily forgotten by understudies. The third, self-imagined understanding is a wholly dominated and simple to-utilize or moved information in different circumstances. Fourth, by utilizing disclosure methodology understudies figure out how to dominate one of the analytic techniques that will want to be created all alone. The last, understudies figure out how to think examination and attempt to tackle issues looked without help from anyone else, these propensities will be moved, these habits will be wired in real life (Eggen & Kauchak, 2016; Smaldino et al., 2011).

The discovery teaching style places a greater demand on lecturers, who must have extensive topic knowledge and the flexibility to deal with a variety of classroom issues. The term "discovery learning" used by students does not refer to haphazard, aimless "discovery." It refers to a circumstance in which lecturers create an issue to ensure that students understand the question and make efforts to solve the problem with the help of the teacher. Lecturers are inevitably confronted with several challenges and tests as a result of pupils' self-exploration. As a result, lecturers must have a sufficient store of information and the ability to summarize and analyze before a class to ensure that they are able to assist students in grasping the crux of the problem, improving their comprehension of the problem, and addressing it creatively. Finally, the discovery teaching style is inappropriate for all classroom instruction, particularly advanced theoretical instruction. As a result, it necessitates the lecturer

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mixing theory with practice and utilizing it flexibly. Therefore, a good lecturer must create a good learning atmosphere, be more active, and involve students in acquiring new knowledge. The lecturers conduct activities like busy discovering, critical thinking, inquiring, and solving the teaching-learning process problems (Arianto & Sari, 2019).

Conclusion

Based on the finding and discussion above, this study results indicated significant differences in the students' vocabulary achievement between pre-test and post-test in teaching English using discovery learning. The hypothesis test results evidence that it is 0.001 less than the alpha value of 0.05. It is indicated that discovery learning provides positive vibes toward the students' achievement in learning English vocabulary as a foreign language. Furthermore, the result from the questionnaire in this study reported that the students' responses are positive. They perceive that the Discovery Learning Strategy benefits them in learning English, particularly in vocabulary course. Related to this result study, researchers recommended that the English teachers utilize the discovery learning strategy in teaching English skills (reading, writing, and listening) or the English elements (vocabulary and grammar), even though it must be well prepared before applying it.

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