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Enhancing Philosophy Comprehension Through the What Am I? Word Guessing Game

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ABSTRACT

This study implemented a game-based learning model based on the "What am I?" word guessing game to enhance university students' comprehension of philosophy. The study was conducted using a mixed-method approach to 55 first-year university students who were enrolled in a philosophy course. The quantitative data was collected by administering a pre-test and post-test, while the qualitative data was collected by administering a questionnaire. The result shows majority of students' scores were increased after taking "What am I?" word guessing game strategies. The data also provided the information that learning strategies implementation was effective in philosophy courses by the null hypothesis is rejected. The learning strategy could provide enjoyable learning and assist them in comprehending a broad spectrum of learning topics. In summary, the implementation of the "What am I?" word guessing game could enhance students' comprehension of philosophical topics and offer an enjoyable atmosphere for learning.

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1. INTRODUCTION

Nowadays, national advancement could be related to how the countries provide the proper education to society, particularly at the higher level of education including college and university levels. Countries are classified as developed when they have an extensive number of individuals with higher education diplomas (Tomlinson, 2008). The quantity of diplomas awarded is also becoming an indicator that the country has excellent human resources. Consequently, colleges are being obliged to focus more on their educational quality and the accomplishments of their alumni.

At the university level, learning systems are designed to provide learners with a comprehensive education and prepare them for their chosen careers or further academic pursuits. These systems are typically structured to foster critical thinking, problem-solving, research skills, and subject matter expertise. The demands on high-order skills and thinking at the university level are affected by the complexity, difficulty, and workload of learning subjects. To strengthen the claim, instruction models aimed at developing learners' higher-order thinking skills are frequently demanded of learners in complicated learning situations (Perkins, 1991). However, the excessive complexity and difficulty of the learning subject have a detrimental influence (Maynard & Hakel, 1997). When task complexity and difficulty increase, learner performance will decline.

Overcoming complexity in learning can be challenging, but the instructor can provide various techniques and recommend innovative learning models to lessen the difficulty, complexity, and work overload. The implementation of enjoyment learning could be a solution for the learning issues. Enjoyment in learning is a powerful motivator that can enhance your overall learning experience and improve retention of information. The students who enjoy what they're learning, it becomes easier to stay engaged, curious, and persistent. The enjoyment of learning is emphasized by the presence of fun and entertainment during the learning process. However, the fun element in learning should be emphasized with the level of difficulty to maintain the cognitive process during learning activity. The fun element should be followed by the hardness factor to create a challenge because "fun without hardness is frivolity; hardness without fun is drudgery". The enjoyment of learning could be presented by the implementation of Game-Based Learning. Game-based learning is a learning approach that emphasizes the function of a game including the elements and principles to engage and educate students. The term game-based learning refers to a sort of gameplay with specific learning outcomes (Shaffer, 2005). Similarly, game-based learning is a combination of instructional process and video games which may be applied to practically any subject or ability level. The game is usually considered to be digital, however, this is not necessarily the case (Adipat *et al*., 2021). This concept implies that the process of designing games for learning entails balancing the necessity to cover the subject matter with the desire to emphasize gameplay (Lameras *et al.*, 20217).

The implementation of games in learning activities is still skeptical for the majority of people. The majority of society believes the implementation of games into teaching and learning systems is not effective and efficient. However, the implementation of Instructors utilizes games to facilitate the teaching and learning process because students enjoy learning when games are included in the process. Games are designed to be engaging and fun, which can increase students' motivation to learn (Lameras *et al*., 2017). When learning is enjoyable, students are more likely to be active and focused during their educational activities. Games also believe can facilitate instructors to teach complex or abstract concepts and can cater to different learning styles and preferences. However, it's essential to carefully design and

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integrate game-based learning into the curriculum to ensure that it aligns with educational goals and objectives.

Game-based learning can be a valuable instructional method in a university setting by improving the learning experience for students in a broad range of disciplines, particularly those with a large load of information and tedious. Educational philosophy course is a complicated and high-load information topic that requires more focus from students to understand the subject's material. This study aimed to integrate game-based learning to reduce the difficulty of subject content and increase student engagement in the subject, which is recognized as a tedious subject. The conventional "What am I?" word guessing games are incorporated as a learning approach. The game is often known as a word charade and guessing game that requires teamwork and strong communication between the players. The "What am I?" word guessing game is a popular word or riddle game that needs collaboration and teamwork. The "Who am I?" word guessing game is often used as a learning strategy in improving students' comprehension of learning topics that consist of high-load information. The implementation of these learning models aims to boost students' comprehension of topic learning subjects and establish an enjoyable atmosphere in philosophy class. Finally, the purpose of this study is to implement a game-based learning model based on the "What am I?" word guessing game to enhance university students' comprehension of philosophy.

2. METHOD

The study was quasi-experimental research by implementing game-based learning based on the "What am I?" word guessing game to enhance student comprehension. The study implemented a Pre-Test and Post-Test One Group design as research design. This study included 55 first-year university students who were enrolled in an educational philosophy course. The subject was selected by using purposive random sampling. The subjects of the study agreed to participate in the research procedure. Furthermore, the data was acquired with the consent of the participant. This study implemented a mixed-method approach. The quantitative data were collected using pre-test and post-test which were constructed based on the topic of educational philosophy courses. The pre-test and post-test were designed using parallel forms in which the test is equivalent in the built to measure the same ability (**Table 1**) (Uzun & Öğretmen, 2021).

The qualitative data were collected by administering open-ended questionnaires to know the perspective of students towards the implementation of the "What am I?" word guessing game. In quantitative data analysis processes, the Wilcoxon signed-rank test was used with the assumption that the data were not normally distributed. The Wilcoxon signed-rank test is a non-parametric test to determine whether there are differences between two dependent samples that are paired or related. Furthermore, the Wilcoxon signed rank test can be used as an alternative to the paired sample T-test if the data were not normally distributed. The qualitative data analysis is using coding and transcribing techniques. This technique evaluates, selects, and classifies each respondent's comments into several categories. The research step includes:

(i) The pre-test was performed by administering a multiple-choice exam to assess students' prior knowledge;

(ii) The game-based learning method "What am I?" word guessing game was carried out by handing out a card containing the answer. The students were divided into several groups. Each group played alternately. Each group selected one member to guess the

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answer and another to provide a specific clue about the keywords on the card. The students competed against one another to advance to the final stage;

(iii) To measure the comprehension of students, a multiple-choice quiz was administered as a post-test;

(iv) We distributed an open-ended questionnaire to students to find out their opinions regarding the "What am I?" word guessing game's implementation.

Table 1. Instrument.

Learning Indicator	Sample of Pre-test item	Sample of Post-test item
Students analyze the branch of educational philosophy	Which of the following definitions best fits existentialism? a. philosophical school which holds that existence is the source of all phenomena. b. philosophical school that aims to provide a contemporary framework for cultural life to replace the outdated one. c. philosophical school which holds that the truth lies in matter d. philosophical school that is founded on normative principles that are timeless or unchangeable	Which of the following definitions best fits perennials? a. philosophical school which holds that existence is the source of all phenomena. b. philosophical school that aims to provide a contemporary framework for cultural life to replace the outdated one. c. philosophical school which holds that the truth lies in matter d. philosophical school that is founded on normative principles that are timeless or unchangeable
Students identify the elements and characteristics of educational philosophy.	The characteristics of philosophy which specify that philosophy is a method of in-depth investigation that yields fundamental and essential results is …. a. Universal b. Systematic c. Radical a. Critical	The characteristics of philosophy which specify that philosophy adheres to cogent and logical thought patterns and procedures even hypothetical is …. a. Universal b. Systematic c. Radical b. Critical

3. RESULTS AND DISCUSSION

3.1. The Implementation of the "What am I?" Word Guessing Game

The "What am I?" word guessing game is an excellent addition to the educational philosophy courses that can make it easier for students to engage with the topic. As is well known, philosophy is a subject that requires in-depth comprehension due extensive amount of information, abstract conception, numerous theoretical concepts, diverse perceptions, and complex terminology. The majority of students (60%) who responded to the questionnaire the researcher utilized for assessing student perception about the difficulty of philosophy courses indicated that the courses was moderate level. In contrast, it is about 20% of students stated that philosophy was an easy subject, a result that was similar to those who said philosophy was a highly difficult subject (**Figure 1**). The questionnaire results also identified student obstacles during philosophy courses, which are the biggest obstacles in numerous theoretical concepts and diverse perceptions (**Figure 2**).

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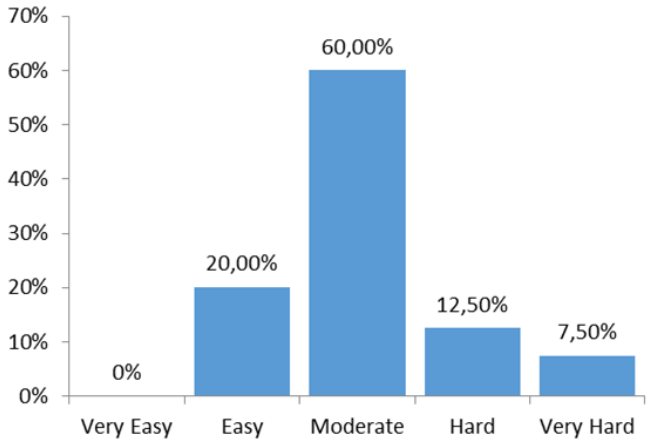

Figure 1. Student Perception towards the difficulty of philosophy courses.

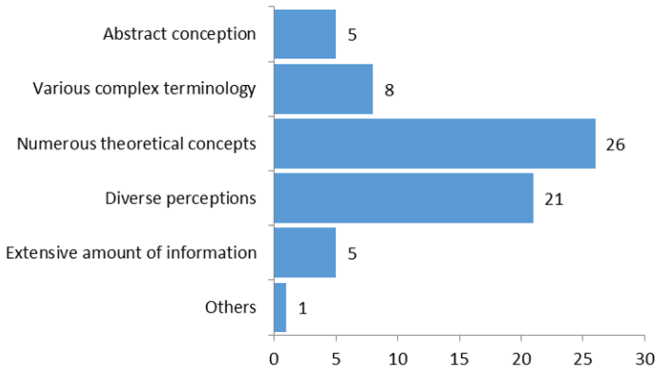

Figure 2. Student obstacles during philosophy courses.

To optimize the implementation of the "What am I?" word guessing game, the instructor should highlight the competitive aspect, base the challenge on the learning objective, and encourage collaborative learning. The "What am I?" word guessing game is implemented in this study in several phases, including:

(i) The students are divided into several teams;
(ii) each team selects its leader who is responsible for showing the keyword cards (which contain the answer) and guessing the answer, while the other team members alternately give clues related to the keyword cards;
(iii) The leader may take the next keyword card after he/she correctly guesses the answer;
(iv) The time allotted for each team round was limited, and the winner was decided by the number of cards the leaders could properly answer;
(v) The winning team advances to the final round to play the other winning team from the other match. These competitive game formats stimulated the students' enthusiasm for winning.

The "What am I?" word guessing game is a simple activity that requires minimal setup, but it has the potential to significantly increase the engagement of students throughout the learning process. The only essential item to have prepared to use when performing the "What am I?" word guessing game is the keywords card. These keyword cards consist of answers that team leaders should correctly guess. The philosophical subjects that students have studied are the basis for the construction of the keyword cards. These topics include the concept of educational philosophy, the famous philosopher, the branch of educational philosophy (existentialism, idealism, progressivism, perennialism, etc.), and the importance

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of educational philosophy. The keywords card contains single-word answers, sentences, and pictures (**Figure 3**).

Figure 3. Sample of "What am I?" guessing game keywords card.

This study also attempts to analyze students' perspectives about the implementation of the "What am I?" word guessing game. Regarding the "What am I?" word guessing game, the majority of students provided satisfactory responses. The first item questionnaire asked about "how the implementation of "What am I?" guessing game in educational philosophy courses?" The majority of students stated that the "What am I?" word-guessing game assisted them in comprehending a broad spectrum of philosophical concepts and complex terminology in philosophy. The other students stated that implementing the "What am I?" word guessing game helps university students feel less bored when taking educational philosophy courses. As students responded to the open-ended questionnaire:

(Students Response 1) "Overall, the implementation of the What am I? word guessing game is becoming an interesting and effective strategy to introduce philosophical topics to first-year university students. It can increase student engagement, build critical thinking skills, and expand our understanding of educational philosophy."

(Students Response 2) "The implementation What am I? word guessing game helps me to comprehend the content and lessens the feeling of boredom that comes with using repetitive learning strategies."

The second item questionnaire asked about student learning experience during the implementation of the "What am I?" word guessing game. The feedback indicates that every student finds the learning activities enjoyable. Additionally, students are challenged to win the game because of the competitive approach that is used during the game activity. As students responded to the open-ended questionnaire:

(Students Response 1) "I enjoy participating in the learning activity as it introduces me to learning through gaming. In addition, it strengthens my bonds with my peers and adds enjoyment to the learning environment."

(Students Response 2) "The What am I word guessing game in philosophy classes creates a more enthusiastic and enjoyable"

The last item questionnaire asked about the comparison between the implementation of the conventional learning method (preaching or group discussion) used and the "What am I?" word guessing game in philosophy class. The students mentioned that they prefer more to the learning method and strategy that could create enjoyment during the learning activity. However, students also suggest implementing various strategies to avoid boredom. As students responded to the open-ended questionnaire:

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(Students) "In my opinion, learning using the "What am I?" word guessing game technique is less complicated than with other learning strategies I've used in the past, including group discussions, etc. Since learning is made simpler and more enjoyable with the "What am I?" word guessing game learning approach, compared to other learning strategies that do not provide a challenging experience."

To sum up, students are more intrigued by actively engaging in the learning process when it promotes a fun learning environment. This level of learning engagement could be attained by using a teaching and learning strategy that emphasizes game design. However, the implementation of game-based learning should promote challenging aspects to induce learning experiences.

3.2. Enhancing Students' Comprehension

The current study is attempting to determine how the implementation of the "What am I?" word guessing game could enhance student comprehension in learning philosophical topics. The student comprehension was measured using the quiz which was designed based on the philosophy topic that students have learned (such as the concept of educational philosophy, the famous philosopher, the branch of educational philosophy, and the importance of educational philosophy). The quiz was administered as a pre-test and post-test in the form of multiple-choice items. The results of the pre-test and post-test were then analyzed to determine the effectiveness of the learning strategy implementation. However, the data were initially analyzed by normality test to investigate the data distribution. The results of the normality test indicate that the data were not normally distributed since the pre-and post-test significance values were less than 0.05 (0.00 < 0.05) (**Table 2**). If the significance values are more than 0.05, the data were categorized as having a normal distribution.

Table 2. Rank test result of pre-test and post-test.

		N	*Mean Rank*	*Sum of Rank*
Posttest-Pretest	Negative Ranks	3[a]		
	Positive Ranks	28[b]	11.50	34.50
	Ties	24[c]	16.48	461.50
	Total	55		

Since the data were not normally distributed, the Wilcoxon signed rank test was applied to assess the effectiveness of the "What am I?" word guessing game implementation. The rank test analysis results, include: (1) the negative ranks between the pre-test and post-tests indicate that around three students' post-test scores are lower than their pre-test scores (Post-test < Pre-test). The mean rank score indicates a decrease in post-test scores around 11.50; (2) the positive ranks between the pre-test and post-test indicate that around 28 students' post-test scores are higher than their pre-test scores (Post-test > Pre-test). The mean rank score indicates an increase in post-test scores of around 16.48, and (3) the ties are a number of pre-test and post-tests that have similar scores (Post-test = Pre-test) which is about 24 students.

Testing the hypothetical of this study through the Wilcoxon test can be used p-value (Asymp. Sig. 2-tailed). Based on the Wilcoxon test, the result of p-value scores (Asymp. Sig. 2-tailed) is 0.000. As the general assumption of the Wilcoxon test, the p-value is less than 0.05 indicating that Ha (alternative hypothesis) is accepted. The hypothesis testing of the Wilcoxon signed rank test can use the critical z-value for a 95% confidence (5% level of significance)

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which is z = 1.96 for a two-tailed test and directionality. If the z-value is higher than 1.96, the null hypothesis (H0) is rejected. In summary, the statistical result shows that the implementation of the "What am I?" word guessing game learning strategy can positively enhance the student's comprehension of Philosophy Subject.

In the process of teaching and learning, encouraging games in the classroom is nothing new. With the use of a range of games, the use of games in education has been commonplace over the past several decades. The implementation of games in the teaching and learning process is known as game-based learning. The games that were used may have been current games via digital media, or they could have been conventional and classic games. The purpose of these strategies was to make learning more enjoyable for the students and to boost their engagement with the subject materials. To strengthen the claim, Hursen and Bas (2019) state that the use of games in the classroom has the potential to greatly assist students in creating meaning and comprehension across all subject areas. Moreover, Barghani (2020) mentioned that the primary advantage of implementing games in learning activities is to facilitate meaningful learning and encourage students' involvement. He also mentioned two primary outcomes of the game's implementation in a learning environment including cognitive outcome (such as learning factual knowledge, cognitive skills, and metacognitive skills) and motivational outcome. It is clear from the preceding statement that the game successfully improves the cognitive skills of students.

This study proposed a specific game strategy based on a charade guessing game. The "What am I?" guessing game is typically a charade guessing game which played collaboratively with peers. The "What am I?" guessing game is a popular word or riddle game where one person thinks of an object, person, animal, or concept, and gives a series of clues or hints to help others guess what they are thinking. The other participants then take turns guessing the answer based on the given clues. Similarly, Burkhalter and Shegebayev (2012) defines a guessing game as a game in which the object is to guess some kind of information, such as a word, a phrase, a title, and the location object. The "What am I?" word guessing game can also be used as an educational tool to help students practice critical thinking, deductive reasoning, and vocabulary skills (Makarim 2022; Wahyuni & Yulianti. 2016). The "What am I?" word guessing game also helps the student to optimize their memory by chunking the information. Chunking is a technique to enhance the efficiency of working memory by grouping information into meaningful units (Sweller, 1994). Furthermore, Chunking can enhance students' problem-solving skills, performance, and reading comprehension as well as their capacity to acquire and retain more information.

Guessing games can play a significant role in the learning process, particularly in educational contexts. The majority of instructor states that guessing games provide an effective and enjoyable way to reinforce learning, engage learners, and develop various cognitive skills. Several experts investigated that the success of game implementation in educational settings is mostly influenced by the motivational element (Byers, 2007; Cameron & Dwyer, 2005; Schobel *et al*., 2020). The motivational element refers to the results of dynamic processes including achievement and social recognition (Schobel *et al*., 2020). This study designed the "What am I?" word guessing game in a competitive format to enhance students' motivation by competing with their colleagues to win the game. This motivational element is also the lead factor for students to improve their knowledge and comprehension of the learning topics. The majority of students demonstrate their motivation to prepare by studying and reading about the learning subjects in greater detail before participating in the game. A study undertaken by experts has demonstrated the efficacy of word guessing games in improving student comprehension of learning topics. Educational experts claimed that

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word guessing games might enhance students' memory, problem-solving skills, and language skills (such as reading, listening, speaking, and comprehension) (Ariawan & Pratiwi. 2017; Hasanah *et al*. 2022; Marsa *et al*. 2021; Masrum *et al.* 2023; Siregar, 2023; Yenprem. 2022; Yunita. 2017). Numerous studies conducted by experts also made an effort to show how guessing games tend to assist in learning by monitoring changes in player behavior. These demonstrate that the implementation game does more than simply provide an entertaining setting; it also stimulates learners' cognitive abilities through the reasoning process (Costa-Gomes & Crawford 2006; Nagel. 1995; Weber, 2023).

In summary, the use of games in educational settings has the potential to impact students' learning outcomes. Specific elements such as motivation and enjoyment are increasingly important when using games in educational settings, particularly when teaching difficult and complex topics. The adoption of educational games approaches has a significant positive influence on teaching, learning, assessment, and evaluation (Connolly & Stansfield, 2007). Furthermore, for the game to be used more successfully for teaching, it should be prompted by something (Cheng & Su, 2012).

The current study has an objective to implement a game-based learning model based on the “What am I?” word guessing game to enhance university students' comprehension of the learning subject. The study revealed that the implementation of the “What am I?” word guessing game is an effective strategy to improve students’ comprehension. This statement was proved by the data collected from the student pre-test and post-test as quantitative data. The data showed that the majority of students' scores increased after taking “What am I?” word guessing game strategies. The data also provides information on whether learning strategies implementation is effective in philosophy courses by showing the z-value value is higher than 1.96, the null hypothesis (H0) is rejected. Additionally, the qualitative data support the quantitative data by providing students with a perspective towards the implementation of the “What am I?” word guessing game strategy. The student states that the learning strategy could assist them in comprehending a broad spectrum of philosophical concepts and complex terminology in philosophy. Moreover, the implementation of learning strategies also provides an enjoyable learning environment that lessens students' feelings of boredom in philosophy classes. To foster interaction between the student and the learning environment, the ideal learning environment should include realistic and factual experiences (Ozerem & Akkoyunlu. 2015). Moreover, one of the key elements that might raise student involvement with learning activities is an enjoyable setting (Barghani, 2020). The study's findings also included many suggestions from students who suggested these typical instructional strategies should be regularly applied to create an ideal learning environment at the university level. However, the implementation of specific learning strategies should be adapted to the learning topic, especially for learning strategies that emphasize a game-based learning approach.

For future study, an improvement toward an identical study that implements a game-based learning approach must be performed, to evaluate the efficacy of learning strategies in improving students' comprehension of a variety of learning topics at the university level. Another recommendation for study improvement is to broaden the number of samples used to increase the accuracy of determining the efficacy of the implemented learning strategy.

4. CONCLUSION

Implementing the “What am I?” word guessing game effectively enhanced university students' comprehension of philosophy topics. The mixed-method study revealed a

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significant improvement in students' scores after applying this game-based learning strategy, as evidenced by rejecting the null hypothesis. Furthermore, the qualitative data highlighted that this approach fostered an enjoyable learning environment, making it easier for students to grasp complex philosophical concepts. This study underscores the potential of interactive and engaging teaching strategies to improve comprehension and enjoyment in academic settings, particularly in philosophy courses.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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