

THE USE OF EDUCANDY APPLICATION TO ENHANCE VOCABULARY MASTERY OF VII C STUDENTS AT SMP WIDYA SAKTI DENPASAR

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ABSTRACT

This study aims to know the best implementation of Educandy Application combined with problem – based learning method to enhance vocabulary mastery of VII C students at SMP Widya Sakti Denpasar. The subject of this research was 35 students of VII C class. This research used Classroom Action Research as research design in which consist of 2 cycles with 2 meetings in each cycles. The instrument of this study is vocabulary test that conducted in preliminary study, cycle I and cycle II. The success criteria of this research is, if all of VII C students passed the minimum completion criteria score which was 75. The finding showed that there is an improvement in students' vocabulary mastery based on the test results. In cycle I, the average score of students was 75 and in cycle II it increased to 87. In addition, the number of students who passed the minimum completion criteria score also increased, from previously in cycle I there were only 18 students while in cycle II, 35 students or all students of class VII C succeeded. The best implementation of Educandy application combined with the problem-based learning method in improving students' vocabulary mastery is by using its features such as crossword and word search game to introduce problem to the students. On this step of problem – based learning, the teacher supposed to introduce the problem to be discussed, then to keep the activity simple, the researcher offered crossword and word search game to be used on this activity.

Keywords: Educandy Application; Vocabulary Mastery; Problem-Based Learning

INTRODUCTION

English has become a lingua franca in international relations (Andrean & Ernati, 2023), and for this reason, it is taught in schools. However, teaching a foreign language comes with unique challenges, particularly when it comes to English (foreign language) (Amrina, 2023). This is particularly true when it comes to English vocabulary because there are many different core skills to learn. These core skills are speaking, writing, listening, and reading (Gustom et al., 2021). While it is necessary for teachers to instruct students in these four skills, teachers are also required to instruct students on the basic elements of English, including vocabulary.

Vocabulary has a significant impact on communication and it is considered a crucial element of English for the success and failure of communication (Ramadhanti et al., 2024). This means that for effective communication, including for students, having a helpful resource in vocabulary is essential. Vocabulary refers to the words which a particular individual has command of (Pradana, 2022). So, vocabulary is the list of words one “masters” which can be deployed in a conversation. As defined by Ardianti et al. (2022) and Rakhmawati (2023), vocabulary is the stock of words an individual possesses and is the basis for language learning. This implies that communication becomes manageable for an individual, including students, if they possess a substantial bank of words. Therefore, vocabulary is important for language learning.

At SMP Widya Sakti Denpasar, particularly in Class VII C, the students encountered challenges in learning English vocabulary. This issue came to the researcher's attention while observing the students during the School Practicum. Some students actively engaged in the learning process and seemed to have some grasp of the English vocabulary, although they were hesitant to respond to the teacher's questions. The majority of the students, however, chose not to actively participate at all. Perhaps the learning process is either not engaging enough, or the students lack a precise understanding of the teacher's explanations, which leave them perplexed about how to respond to posed questions. Given the phenomenon the researcher noticed, the

researcher organised a vocabulary test about ‘my hobby’ which consisted of 30 multiple choice questions. This was aimed at gathering more information about the vocabulary mastery of students in Class VII C and identifying the problem areas in English vocabulary. The researcher carried out this preliminary study on Saturday, 12 October 2024.

The vocabulary test for this preliminary study was conducted with 35 students from Class VII C at SMP Widya Sakti. Additionally, this vocabulary test was evaluated with respect to the minimum achievement benchmark for Year VII, which is a score of 75, to assess if the students pass or fail the English vocabulary test in this preliminary study. The results indicate that 27 students were considered unsuccessful in the preliminary study vocabulary test as they scored below the cut-off score of 75. On the other hand, only 8 students successfully obtained a score of 75 or higher. The test’s score range was as follows: highest 80, lowest 22, and the mean 54. Therefore, it can be concluded that 8 students attained the minimum threshold while 27 students did not. In addition, the researcher evaluated the students' answers that were mostly wrong in terms of which vocabulary components they pertained to.

As indicated in their answers to the vocabulary test, students struggled the most with distinguishing synonyms and antonyms. Subsequently, the researcher conducted interviews with the English teacher and some students to gain further insights into the vocabulary issues present in class VII C. From the interviews, it became clear that the teacher had been using the strategy of memorisation and recall of English vocabulary during each lesson, with the goal of expanding the students' vocabulary. He was discouraged to learn that English vocabulary recall was a challenge for only 40 per cent of the students. Subsequently, the researcher conducted a question and answer session with students on issues that challenged them. Their responses highlighted lack of interest and motivation as the English learning gap as a consequence of lack of vocabulary knowledge. This technique is not entirely devoid of student interest; however, it requires innovative approaches and materials to help students learn vocabulary, as opposed to only memorising lists (Ardiansah, 2021), (Yudha & Mandasari, 2021). Given these challenges, the researcher decided to use the Educandy application as the primary instructional tool.

Educandy is an application that allows for the creation and design of games tailored to specific educational content by teachers (Andani, 2024). Access to various game development features on the application allows teachers to create games that meet the educational objectives. Games are utilised during the teaching process not for entertainment, but to ‘make learning sweeter’ as the slogan suggests (Simanungkalit et al. 2023). The application, therefore, assists teachers to create enjoyable but educational lessons through games based on learning material. In addition, this application provides centre and game features of quiz questions, words and matching pairs to be created into more types of games (Alchorni, 2023). With the different types of games offered through Educandy, teachers are able to prepare the material as games and use them during class to be played in multiplayer mode.

Empirical studies suggest that the benefits of this application derive from the fact that one game feature may be transformed into several other mini games that both students and the tutor may select (Simanungkalit et al., 2023). With the myriad game options at hand, both students and their tutors have the freedom to customise the application’s options to their preferences and requirements at any given moment during the learning process. The researcher chose Educandy because the application relates to spelling and vocabulary through its games such as Spell It and anagrams, which involve answering by assembling a set of given random words. The reasoning provided above along with supporting prior studies which the researcher has provided demonstrates that the application of Educandy is effective and successful in enhancing the vocabulary mastery of the students.

According to research conducted by Islamiah et al., (2024), the issue arises from the traditional methods of teaching English which disinterested students, particularly with regard to vocabulary. To address these concerns, the researchers undertook a study aimed at improving

students' vocabulary mastery through the use of Educandy. The findings revealed that Educandy positively impacted vocabulary mastery as students' test scores improved from an average of 84 in cycle 1 to 93 in cycle 2. Moreover, Educandy was described as an enjoyable application that captured the learners' attention during lessons. In addition, studies conducted by Khoirunnisa et al., (2023), Salsabila et al., (2024), and Ramadhanti et al., (2024) which examined the effectiveness and impact of Educandy on vocabulary mastery also supported the findings by Islamiah et al., (2024). It is evident that the use of Educandy as a learning tool significantly and effectively impacts and assists students in mastering vocabulary, as shown by the average comparison of classes that used the application with those that did not.

Building on the aforementioned research, which concluded that the application of Educandy is capable of fostering vocabulary mastery, the researcher aimed to integrate the application of Educandy with a problem-based learning approach to enhance the vocabulary mastery of the VII C students at SMP Widya Sakti Denpasar. The researcher aims to assist students in overcoming challenges associated with vocabulary mastery with the use of this application.

METHOD

Based on existing problems, the researcher applied Classroom Action Research (CAR) design in conducting the research. The researcher used this research design according to the problems that occur in the field of study. This research aims to know the best implementation of Educandy application to enhance vocabulary mastery of VII C students at SMP Widya Sakti Denpasar. The researcher adopted Classroom Action Research design model from Kemmis and Mc Taggart (Islamiah et al., 2024). Before conducting cycle I, the researcher already conducted a preliminary test in the form of a vocabulary test to identify students' initial condition about vocabulary. The Classroom Action Research divided the learning process into several cycles namely planning, action, observation, and reflection. The researcher conducted and repeated the cycle until achieved the criteria of the research's success which is all of the students in VII C achieved the Minimum Completion Criteria score of 75 or higher.

The place where this research conducted was in SMP Widya Sakti Denpasar. This school was located at Penatih, North Denpasar District, Denpasar City. There were a total of 15 classes in this school, 6 classes for seventh-grade, 4 classes for eighth-grade, and 5 classes for ninth grade. This place was chosen based on the results of preliminary study in which the researcher found problems in VII C class. Another reason is that the students at SMP Widya Sakti Denpasar are allowed to bring their mobile phones and may use them if needed during the learning process.

This research was conducted on seventh-grade students at SMP Widya Sakti Denpasar. The research subject was VII C class, which consisted of 35 students, 18 male students, and 17 female students. This subject was chosen because the researcher found a problem in this class while observing the learning process. These students face difficulty in English vocabulary, specifically in identifying the word meaning aspect namely synonyms, and antonyms of the words. The success criteria of this research referred to the Minimum Completion Criteria score for the seventh-grade level, namely 75. This research would be completed if all of VII C students achieved a score of 75 or higher on the post-test after using Educandy application combined with problem-based learning in learning English vocabulary.

In this study, the researcher used a post-test as an instrument to measure students' vocabulary mastery scores after implementing Educandy application combined with problem-based learning in teaching and learning process. The test that researcher employed to measure students' vocabulary mastery is a vocabulary test. The vocabulary test conducted at the second meeting of cycle I. The number of questions in this test were 27 items with 23 multiple choice questions and 4 fill in the blank questions. The material that used on the test, namely My School

Building about the names of school buildings, asking and giving directions about the location of buildings.

RESULTS AND DISCUSSION

Result on Preliminary Study

In this preliminary study, the researcher collected data from VII C class at SMP Widya Sakti Denpasar which consisted of 35 people on October 12, 2024. The data was taken in the form of a vocabulary test consisting of 30 multiple choice questions. This vocabulary test was carried out for 40 minutes with the material 'My Hobby'. The result of test showed that 27 students did not reach the minimum completion criteria of 75 and only 8 students reached 75. The highest score of the test was 80, the lowest score was 22, and the average score was 54. The researcher also interviewed students regarding their lack of vocabulary mastery, which was due to lack of interest in learning English; they felt less motivated because they did not know a lot of English vocabulary, so they did not understand what they were learning. Based on this problem, the researcher conducted a study using classroom action research design which has 4 steps in it and implementing Educandy application combined with problem-based learning method to the learning process.

Table 1 Preliminary Study Result

Aspects	Preliminary Study
Mean	54
Median	50
Mode	50
Highest Score	80
Lowest Score	20
Passed the MCC score (75)	8 students
Failed the MCC score	27 students

The Implementation of Cycle I

Cycle I was implemented through 4 steps of the classroom action research design which consisted of planning, action, observation, and reflection, as described below:

Planning

In this step, the researcher planned several important things before conducting research at SMP Widya Sakti Denpasar. Starting from analyzing the syllabus to find basic competencies to design a lesson plan, which consists of 2 meetings by implementing Educandy application combined with problem-based learning. The researcher used 5 game features in Educandy application, namely crosswords, word search, match - up, anagrams, and nought & crosses in the learning process. The material used is My School Building, where this material is chosen based on the estimated material that will or has not been learned at the time the researcher conducts the research. After that, the researcher prepared the research instrument in the form of a vocabulary test, which had to be checked first for its validity and reliability. The final number of questions for the cycle 1 post test that had been checked was 23 multiple choice and 4 fill in the blank.

Action

The research was conducted in class VII C according to the prepared lesson plan over two meetings, held on March 10 and 11, 2025. During the pre-activity of the first meeting, the teacher began with a Balinese greeting, took attendance, and reviewed previous material before introducing the new topic, vocabulary related to school buildings and their functions, through

apperception questions such as asking students to identify places like where books are borrowed. In the whilst-activity, vocabulary was introduced using a word search game on the Educandy application, projected from the teacher's laptop. Although students were initially hesitant, participation increased after a few volunteers came forward, and the activity also incorporated pronunciation practice. This was followed by a group task where students identified school buildings and their functions. The discussion, initially planned for 10 minutes, was extended to 15 minutes after monitoring revealed not all groups had finished. Groups then competed in a crossword game on Educandy with seven questions, such as identifying where food and drinks are sold during breaks. However, the activity became somewhat disruptive as groups rushed to answer the limited number of questions. In the post-activity, the teacher led a reflection on group collaboration, task distribution, and decision-making. It was noted that while some students were disengaged due to the simplicity of the task, other groups effectively shared responsibilities to ensure participation. The session concluded with a closing greeting.

The Second Meeting of Cycle I

The second meeting commenced on Tuesday, March 11, 2025, with the teacher offering a Balinese greeting, taking attendance, and reviewing the previous lesson on school buildings and their functions. To introduce the new topic, the teacher posed a starter question, prompting students to collaboratively describe their classroom's location, atmosphere, and condition. Initial hesitancy gave way to participation after the teacher directly called on students, who were then encouraged to select their peers to contribute, ensuring broader engagement. For the main activity, the teacher introduced relevant word classes, nouns, verbs, adjectives, and prepositions, followed by an extensive anagram game on the Educandy application where students unscrambled 39 vocabulary words and identified their word classes, also serving as spelling practice. Subsequently, students were divided into groups of four and tasked with identifying the word classes of bolded terms in a short descriptive text. Following the teacher's suggestion, groups delegated sections to individual members to work efficiently over 15 minutes, with some also discussing their findings collaboratively. The results were then reviewed through a competitive noughts and crosses game on Educandy, which spanned approximately 27 minutes as groups strategized to answer nine questions, leading to a lively and slightly noisy atmosphere as members assisted their representatives. In the concluding post-activity, the teacher facilitated a reflection on group problem-solving, discussing methods for resolving answer discrepancies, such as voting or deferring to a leader—and the effective distribution of tasks, which ensured all members had responsibilities. The session ended with a Balinese closing greeting.

Observation

In this step, the researcher who acts as a teacher also observed the ongoing learning activities, ensuring that the syntax runs according to the lesson plan that has been made and also ensuring that all students join the game in the Educandy application that has been made. In learning activities in cycle I using the Educandy application, at first students were still not used to the application. But they were enthusiastic in every game activity given by the teacher even though they still did not understand how to play. Most of the students try to get a chance to play, but there were also a small number of students who were uninterested. So the teacher encouraged students who were not interested to try the game activities on the Educandy application. At this step, the researcher also conducted a post-test after 2 meetings of cycle I ended, namely on Wednesday, March 12, 2025. The post test was in the form of a vocabulary test containing 23 multiple choice questions and 4 fill in the blank questions, so in total there were 27 questions that were done within 40 minutes. In preliminary study, the test was in multiple choice but for post test cycle I the researcher decided to add fill in the blank questions

to measure the spelling more accurate than in the multiple choice. Here is the details in the following table.

Table 2 Cycle 1 Post-Test Result and Comparison

Aspects	Preliminary Study	Post – Test Cycle 1
Mean	54	75
Median	50	77
Mode	50	74
Highest Score	80	92
Lowest Score	20	59
Passed the MCC score (75)	8 students	18 students
Failed the MCC score	27 students	17 students

Based on the table of analyzed results from the post-test, it can be seen that there was an improvement in the average score of students in cycle I compared to the preliminary study. The average pre-test score in the preliminary study was 54 and increased to 75 in the cycle I post-test. Based on this result, it can be said that there is an improvement in students' vocabulary after learning using Educandy application combined with problem-based learning method. The result of students' post – test in this cycle can be seen in appendix 12.

Moreover, the researcher also analyzed whether the aspect of vocabulary that was identified as a problem in the preliminary study had already been solved or not. The identified problem was that students struggled in identifying the word meaning of words namely, synonym and antonym. Most students already overcome that problem, it was also seen through their performance in the classroom. At first, they only knew fews of synonym and antonym of direction but then the researcher introduced more of direction name through game feature of Educandy. However, the researcher found that few students failed in answering the questions of identifying word classes in the post – test.

Reflection

Based on the results of the post test in cycle I, the implementation of the Educandy application combined with the problem method showed an improvement in students' vocabulary. This can be seen from the number of students who managed to reach the minimum completion criteria score of 75, there were 18 students compared to the preliminary study which only 8 students reached the score of 75. Here is the comparison of average score from preliminary study and cycle I:

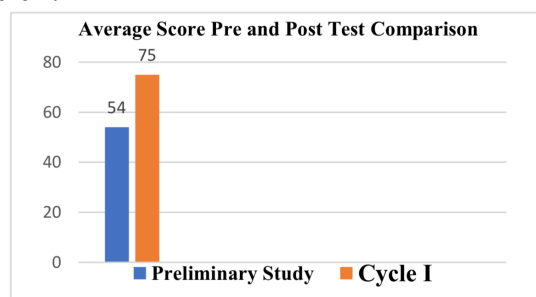


Chart IV. 1 The Comparison of Average Score from Cycle I

In addition, it can be seen from the average test score on chart above, in cycle I the average score increased to 75 which previously in the preliminary study was only 54. However, the results of the post-test cycle I have not met the criteria of research success. Also, the purpose of this research which is to enhance vocabulary mastery of VII C students have not successful yet. Since the number of students that failed to reach the minimum completion criteria of 75 on this cycle I was 17 students, in which it should be 0 students to be considered successful.

For that reason, the researcher continued the cycle to cycle II. On the learning process in cycle I, the researcher found several potential issues that will be used as a reflection for the next cycle. First, the issue of lack of time given while discussing the given problem, the solution was adjusting the discussion time based on the level of difficulties from the given problem. The next issue was uncondusive situation during the crossword game activity, because the students competed to get chance to play since the number of given questions were limited which was only 7 questions for 7 groups. The solution was, the researcher added one more game activity so the students and their group could answer more than one question from crossword game in Educandy application. The other issue was that the given problem was less complicated or difficult which made some students did not contribute to the their group discussion. Since it was less complicated, the members of group could finish it quickly and it was done by 2 – 3 members which made their other friends did not get fully chance to contribute. The solution was, the researcher gave a given problem that more complicated which require all group members working together and also adjusting the number of students in groups based on the difficulty of the given problem. The other issue was, the warming up activity with anagram game in Educandy application took so long as there were a lot of vocabularies that the students should found. The solution was, shortened the time of warming up and just begun with simple activity in a short time. The next issue was, the researcher found a small number of students that uninterested while the other students try their best to get a chance to play the game in Educandy application. The solution was, the researcher encouraged those students to participate and also gave them chance to answer more than one question on the game.

The Implementation of Cycle II

Planning

At this step, the researcher designed the lesson plan after the post-test results from cycle I had not met the criteria for research success. In the lesson plan of cycle II, there were several things that researcher added such as providing small activity in the form of Educandy games when the teacher told students to remember the previous material. This would help students to remember the previous material and also to familiarize students to learn with Educandy application more than before. Another thing that was added was using the game feature in the Educandy application to introduce the problem to be discussed or to introduce the material to be delivered. At the time of organizing students, the researcher designed that the number of group members was no more than 5 people and a minimum of 2 people adjusted to the problems given. This aimed to ensure that all members could maximally discuss or do their part of the task. Overall, in this cycle II, the researcher tried to maximize or implement more of Educandy application than in the previous cycle.

Action

The research was implemented in class VII C according to the developed lesson plan across two sessions on April 14 and 15, 2025. During the pre-activity of the first meeting, the teacher began with a Balinese greeting, took attendance, and engaged students in a review of previous material on word classes related to school buildings using a match-up game on the Educandy application. This was followed by an apperception to introduce the new topic—giving directions to school buildings, by asking students to describe the location of places like the canteen. Students demonstrated limited directional vocabulary, primarily using basic terms such as right-left and front-back, which prompted the teacher to introduce a mini-game to expand their knowledge. In the whilst-activity, a word search game on Educandy was used to teach directional vocabulary like *beside*, *behind*, and *inside*, though the activity required extra time due to students' unfamiliarity with the terms. Subsequently, the teacher presented a school

map and assigned problems requiring students to give directions, such as guiding a new teacher to the computer lab or identifying locations using synonyms and antonyms. Students worked in small groups of 3-4, with the teacher monitoring to ensure participation from all members, including those who were initially disengaged. After a 15-minute discussion, groups competed in a match-up game on Educandy to solve the problems and additional questions, which took approximately 25 minutes and fostered a competitive atmosphere. During the post-activity, the teacher facilitated a reflection on problem-solving strategies, noting that some groups addressed non-participating members by assigning them as representatives, while others collaborated without formal task division or even visited the actual buildings for clarity. The session concluded with a Balinese farewell.

The Second Meeting of Cycle II

The second meeting was conducted on Tuesday, April 15, 2025, beginning with the teacher greeting the students in Balinese and taking attendance. Students were then asked to recall the previous lesson on giving directions to school buildings through a match-up game on the Educandy application, where they matched questions with provided answers. This was followed by an apperception involving synonym and antonym questions related to directional vocabulary, which served as an introduction to the day's topic. During the main activity, the teacher initiated a quiz on synonyms and antonyms of directional terms using match-up and noughts and crosses games on Educandy. Students demonstrated growing familiarity with the games, though they encountered some difficulty with antonym matching. The noughts and crosses game, featuring nine questions and answers, was played in a turn-based manner, with students showing increased confidence compared to the earlier activity. Subsequently, the teacher presented a school map and assigned a problem requiring students to guide a lost individual to a school building, alongside tasks involving identifying synonyms (marked in red) and antonyms (marked in blue) of directional words in a short story. Working in groups of three to four, students were given 15 minutes to discuss, with the teacher providing guidance and encouraging the use of the map. After the discussion, each group presented their directions while using the map, followed by an anagram game on Educandy where students rearranged letters to form directional words. This activity initially posed challenges but became easier as vocabulary options narrowed, taking approximately 12 minutes. In the post-activity, the teacher facilitated a reflection on group problem-solving strategies, noting effective task delegation and collaboration, including the role of group leaders in ensuring all members contributed. The session concluded with a Balinese farewell.

Observation

At this step, the researcher monitored the learning process in the classroom. In addition, the researcher also ensured that the syntax of the problem-based learning method was running in accordance with the lesson plan designed based on the results of the reflection in cycle I. Moreover, the researcher also ensured that all students participated in group discussions and games on the Educandy application. The researcher also conducted a post-test for cycle II after the two meetings ended. The post-test for cycle II was conducted on Wednesday, April 16, 2025. The post-test was in the form of a vocabulary test which consisted of 25 multiple choice questions and 5 fill in the blank questions so there were 30 questions in total with the material that had been given, namely 'My School Building'. The time given for this cycle II post-test was 40 minutes. At this step, the researcher analyzed the results of the post-test in cycle II. The results of the test showed that 35 students or all students in VII C class successfully reached and even surpassed the score of minimum completion criteria 75. The highest score of this post-test was 100 and the lowest score was 76 with an average score of 87, for more details in the table below.

Table IV.3 Cycle II Post-Test Result and Comparison

Aspect	Post – Test Cycle 1	Post – Test Cycle 2
Mean	75	87
Median	77	86
Mode	74	80
Highest Score	92	100
Lowest Score	59	76
Passed the MCC score (75)	18 students	35 students
Failed the MCC score	17 students	-

Based on the table of analyzed results from the post - test cycle II and the comparison with post - test cycle I result, it can be seen that there was an improvement in the average score of students in this cycle II compared to post - test cycle I. The average score of the post-test cycle I was 75 which increased to 87 in the post-test cycle II. Based on these results, it can be said that there was an improvement in students' vocabulary after learning using Educandy application combined with problem - based learning method from cycle I to cycle II. The number of students who reached or even exceeded the minimum completion criteria also increased from 18 students to 35 students.

Moreover, the researcher also analyzed whether the aspect of vocabulary that was identified as a problem in the cycle I had already been solved or not. The identified problem was that students struggled in identifying the word classes. Most students already overcome that problem, at first, they only can identified the verbs of the given sentence, but after the treatment on cycle I, they showed improvement in identifying the other word classes such as adjectives, noun, and preposition.

Reflection

Based on the results of the post test in cycle II, the implementation of the Educandy application combined with the problem method showed an improvement in students' vocabulary. This can be seen from the number of students who managed to reach the minimum completion criteria score of 75. On this cycle II there were 35 students who passed the minimum completion criteria score compared to the post test cycle I which was only 18 students who reached the score of 75. Here is the comparison of average score in cycle I and cycle II.

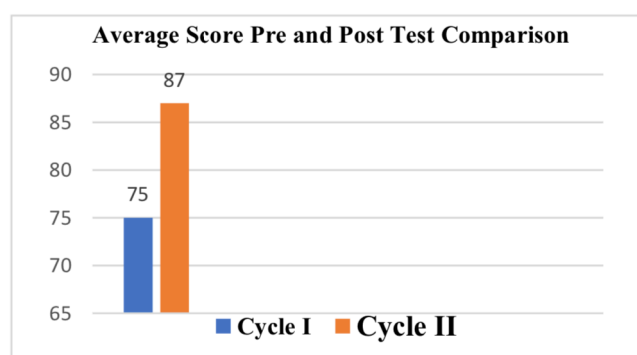


Chart IV. 2 The Comparison of Average Score from Cycle II

In addition, it can be seen from the average test score on chart above, in cycle II the average score increased to 87 which previously in the post test cycle I was only 75. On this cycle, the researcher also found issues in the learning process. The first issue was students struggled while describing the location of school building due to limited vocabulary knowledge

on names of directions. So the possible solution for the next was providing mini game by using game feature on Educandy application to introduce vocabulary of directions. The next issue was there were still few of students that did not want to work on the given problem. So the researcher would create competition that count point from answering question from Educandy application and would be rewarded into something that made them excited which was additional point that can be added to gain score while daily exam.

Based on the data above, it can be stated that this research is successful because the results of the post-test cycle II showed that 35 students or all students of class VII C successfully reached and even exceed the minimum completion criteria of 75. So, the cycle only up to cycle II and does not continue to the next cycle because the research managed to achieve the success criteria of this research that has been determined by the researcher.

The Best Implementation of Using Educandy Application Combined with Problem-Based Learning Method

The optimal implementation of the Educandy application within a Problem-Based Learning (PBL) framework begins with the teacher opening the class with a Balinese greeting and taking attendance. To activate prior knowledge, the teacher then uses the Educandy crossword game feature for a brief review, presenting five questions related to previous material. A short, five-minute word search game serves as an effective warm-up, engaging students with a simple yet stimulating task that prepares them for the main activity. The transition to the new problem is facilitated through these same game features, which can introduce a simplified version of the upcoming challenge without overwhelming the students. Subsequently, students are organized into groups, with the size (a maximum of five members) strategically determined by the complexity of the problem, such as identifying synonyms and antonyms to ensure every student has a role. The teacher must actively monitor to guarantee all members participate and provide facilitation when groups encounter difficulties. To maintain an engaging and dynamic discussion of the problem, the teacher employs appropriate Educandy features; for instance, the match-up or noughts and crosses games are ideal for straightforward matching tasks, while the anagram feature can reinforce correct spelling. Finally, the session concludes by inviting students to reflect on their problem-solving processes, prompted by guiding questions about task distribution and resolving differing opinions within their groups.

DISCUSSION

The findings of this study show an improvement in vocabulary mastery, with the average score rising from 75 in Cycle I to 87 in Cycle II. This positive trend is strongly supported by a body of external research on the Educandy application. For instance, Islamiah et al. (2024) reported a score increase from 85 to 93, while Salsabila et al. (2024) and Saputra (2023) documented rises from 69.67 to 78.33 and 64 to 79, respectively. Furthermore, studies by Ni'mah and Shofi (2024), Harahap (2023), Khoirunnisa et al. (2023), and Andani (2024) all consistently show that classes using Educandy outperformed control groups, with significant score differentials and a higher number of students meeting minimum completion criteria. The research by Ramadhanti et al. (2024) corroborates this, noting a jump from 70.32 to 88.14 and highlighting improved vocabulary retention and spelling. In the present study, the progression from a baseline of 54 in the preliminary study to 75 in Cycle I and finally to 87 in Cycle II confirms that the integration of the Educandy application with a problem-based learning method successfully enhanced the vocabulary mastery of seventh-grade students at Widya Sakti Junior High School, thereby meeting the predetermined criteria for research success.

CONCLUSION

In implementing the Educandy application within the scope of problem-based learning (PBL) to improve vocabulary mastery, the most effective approach is to use the crossword and word search features as initial problems for students to tackle. In this phase of problem-based learning, the teacher is expected to pose the challenge, and to streamline the process, the researcher utilised crossword and word search puzzles. These activities required students to locate vocabulary from a list within scrambled letters and guess the answers from provided clues, a process that was effortless, especially at the initial stage of problem identification. Such simple demonstration activities support vocabulary acquisition. With respect to the above test results, the researcher adds that this study is successful as it meets the criteria set for success. In this case, all students from class VII C of SMP Widya Sakti Denpasar participated and were able to achieve, and some even surpassed, the set minimum completion criteria of 75. The use of the Educandy application appears to have successfully enhanced the vocabulary mastery of students in class VII C, evidenced by the improvement in the number of students achieving and surpassing the targeted score, as well as the notable comparison in average test score data. Looking at the averages, the mean in post-test cycle II is significantly greater than the mean in the pre-test and post-test cycle I.

SUGGESTION

To promote technology integration in learning, SMP Widya Sakti Denpasar needs to improve infrastructure by ensuring comprehensive Wi-Fi access and properly functioning projectors. This would support the use of Educandy for teaching English vocabulary and would move lessons beyond rote memorisation. The application has helpful, interactive games like anagrams, match-up, and word search which help students self-learn and practise spelling both in the classroom and at home. For further research, it would be interesting to study the use of Educandy at other grade levels, for other skills and subjects, and with different approaches like problem-based learning.

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