
**IMPLEMENTATION OF PROBLEM BASED LEARNING BASED ON
EDUCATIONAL GAMES DUCK RACE AND WORDWALL TO IMPROVE
ENGLISH VOCABULARY MASTERY OF STUDENTS OF SMP NEGERI 2
KISARAN**

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Abstrak: Penelitian ini bertujuan untuk mendeskripsikan penerapan model Problem Based Learning (PBL) berbasis media permainan edukatif Duck Race dan Wordwall dalam meningkatkan penguasaan kosakata bahasa Inggris siswa kelas VII SMP Negeri 2 Kisaran. Latar belakang penelitian ini adalah rendahnya minat dan penguasaan kosakata siswa dalam pembelajaran bahasa Inggris yang monoton. Metode yang diterapkan adalah Penelitian Tindakan Kelas (PTK) yang terdiri dari dua tahap. Penelitian ini difokuskan pada siswa kelas VII. Alat pengumpul data terdiri dari observasi, tes penguasaan kosakata. Hasil penelitian mengidentifikasi bahwa penerapan PBL berbasis Duck Race dan Wordwall mampu meningkatkan partisipasi aktif siswa dalam kegiatan pembelajaran, dan terjadi peningkatan nilai rata-rata penguasaan kosakata dari siklus I ke siklus II. Selain itu, siswa menunjukkan antusiasme yang besar terhadap penggunaan media permainan edukatif. Oleh karena itu, penerapan model PBL menggunakan media interaktif terbukti berhasil meningkatkan penguasaan kosakata bahasa Inggris siswa kelas VII SMP Negeri 2 Kisaran. Penelitian ini menyarankan penggunaan permainan edukatif sebagai salah satu elemen strategi creative pursuit di kelas.

Kata Kunci: Pembelajaran Berbasis Masalah, Penguasaan Kosakata, Permainan Edukasi, Balapan Bebek, Wordwall, Pembelajaran Bahasa Inggris.

Abstract: This study aims to describe the implementation of the Problem Based Learning (PBL) model based on educational game media Duck Race and Wordwall in improving English vocabulary mastery of seventh grade students at SMP Negeri 2 Kisaran. The background of this study is the lack of interest and vocabulary mastery of students in monotonous English learning. The method applied is Classroom Action Research (CAR) which consists of two stages. This study focuses on seventh grade students. Data collection tools consist of observation, vocabulary mastery tests. The findings of the study identified that the implementation of PBL based on Duck Race and Wordwall was able to increase students' active participation in learning activities, and there was an increase in the average value of vocabulary mastery from cycle I to cycle II. In addition, students showed great enthusiasm for the use of educational game media. Therefore, the application of the PBL model using

interactive media has proven successful in improving English vocabulary mastery of seventh grade students at SMP Negeri 2 Kisaran. This study suggests the use of educational games as an element of creative pursuit strategies in the classroom.

Keywords: *Problem Based Learning, Vocabulary Mastery, Educational Games, Duck Race, Wordwall, English Language Learning.*

INTRODUCTION

In English learning, vocabulary mastery is very necessary, because it is the basic for other language skills such as listening, speaking, reading, and writing. Richards and Renandya (2002) stated that vocabulary is a major component of language skills and provides a significant basis for how well students speak, listen, read, and write. Therefore, their success in understanding and using English actively is greatly influenced by students' ability to master vocabulary.

But the difficult is the lack of vocabulary owned by students when implementing learning in class. From the results of observations in class VII of SMP Negeri 2 Kisaran, it was found that remembering and applying English vocabulary well and correctly was very difficult. There are several causal factors, namely variations in methods with traditional and boring learning models, lack of use of interesting learning media, lack of enthusiasm of students in participating in learning

To increase students' motivation and involvement in actively participating in English learning, a learning model that can solve the problem is used. Problem-Based Learning (PBL) is one of the appropriate learning models. This model is a learning model that invites students to collaborate in solving real problems so as to encourage students to be more active in learning. According to Hmelo-Silver (2004), problem-based learning is a teaching method where students learn through facilitated problem solving. When learning English, they are given the opportunity to improve their language skills as a whole, namely by solving the problems given in the PBL learning model.

Interactive learning media that is also in line with character development and the times can provide support for the success of the implementation of the PBL learning model. Duck race and Wordwall are innovations that can be applied. Vocabulary material through interesting and competitive games can be presented through this media. According to Prensky

(2001), digital game-based learning combines engagement and learning in a powerful way that is often lacking in traditional teaching. Educational games create a fun and motivating learning environment and can also help students remember vocabulary.

Duck Race is a virtual competition platform used to select students who will answer the questions given, while wordwall has various activities that can be used by teachers to do exercises such as quizzes, matching and also crosswords. Students are encouraged to think critically to solve problems given through the PBL learning model while strengthening students' vocabulary by combining Duck Race and Wordwall in problem-based learning.

The purpose of this study is to explore the application of the Problem Based Learning model based on the educational game Duck Race and Wordwall in improving the mastery of English vocabulary of class VII students of SMP Negeri 2 Kisaran with the background of this. Creative and interesting learning models for students are expected to receive development from the implementation of this case study

RESEARCH METHODS

This research was conducted through Classroom Action Research (CAR). Students, peers, and documents became data sources when conducting this classroom action research. There were four stages carried out, namely planning, implementation, observation and reflection. This research was conducted in two cycles and each cycle had 4 stages. This CAR model refers to Kemmis and McTaggart (1998) classroom action research is a form of self-reflective inquiry by participants to improve the rationality and justice of their own educational practices. The subjects of this classroom action research were students of class VII of SMP Negeri 2 Kisaran because based on the results of the initial test and observations of the class teacher, this showed low vocabulary learning outcomes.

The learning model used is Problem Based Learning (PBL) which is based on educational games media, namely Duck Race and Wordwall. According to Savery (2006), Problem Based Learning is an instructional learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem. In this study, students were asked to solve the problems given in the form of vocabulary usage tasks in carrying out daily activities at school with the help of interactive game activities.

Duck Race and Wordwall are used for problem solving that can support interesting and meaningful learning. Duck Race is used to trigger students' quick response and engagement to the vocabulary questions given in a competitive atmosphere, and Wordwall is used to create variety when doing vocabulary exercises such as quizzes, word matching, and crosswords.

The instruments used in this classroom action research are vocabulary mastery tests, where this test is used to assess students' understanding of vocabulary in English both before and after the action, and student activity observation sheets, where this sheet is used to assess whether students are involved in the learning process.

Descriptive is a method used to analyze data, both quantitative and qualitative. Conducting an analysis of student scores aims to identify improvements made by students in vocabulary mastery from pre-action, cycle I, to cycle II. To evaluate how the increase in participation and student perception of the learning model is carried out, an analysis of the observations made is carried out. Assessment of the effectiveness of the action then conducts an analysis of the results by comparing the values and findings in each cycle

RESULTS AND DISCUSSION

This is a comparison of the percentages of the initial conditions of cycle I and cycle II, which shows the level of student learning completion.

STAGE	AVERAGE VALUE	COMPLETENESS (%)
Pre-cycle	58	35
Cycle I	71	65
Cycle II	80	72

From the following table, it can be seen that the use of the PBL model based on educational games media has a positive impact on students' vocabulary mastery skills, as seen from the average value which has increased by 26 points.

From the results of observations made in cycle I and cycle II where students were seen when following the learning process using Duck Race and Wordwall had an increase in enthusiasm for learning compared to not using educational games media. This is evidenced by the results of observations that show an increase in learning participation from cycle I to cycle II. Where students who are active in cycle I are 68%, while in cycle II there is an increase to 87%

The results of this study can support Nation's (2001) opinion that vocabulary learning is more effective when learners are actively involved and the learning is meaningful and contextualized. With PBL, students not only remember the vocabulary given but can also use and relate it to everyday life when solving the problems given.

Students also receive encouragement to improve speed, accuracy and courage in answering questions through the Duck Race media which can also offer a competitive learning experience. Not only that, Wordwall Media also makes students more interested in answering the questions given because it has various types of quizzes and interactive games that use visual, kinesthetic, and auditory approaches. And this is related to the opinion according to Prensky (2001) game-based learning enhances engagement and motivation through elements of fun, challenge, and interactivity. The Problem Based Learning learning model invites students to think critically and collaboratively when completing the tasks given.

Through the combination of appropriate digital media and contextual learning models, students are more concentrated, actively involved and more confident in using English vocabulary. This shows that to get good learning outcomes, creative learning must be carried out and in accordance with the learning styles of students in the 21st century.

CONCLUSION

The results of the study conducted as many as 2 cycles, it can be concluded that to improve English vocabulary mastery by implementing the Problem Based Learning (PBL) learning model combined with educational games media Duck Race and Wordwall in class VII SMP Negeri 2 Kisaran has proven effective, this is proven by the increase in the average value of students on vocabulary mastery, namely from the pre-cycle, namely 58 to 84 in cycle II, student involvement in learning is seen to increase in cycle II where there is a significant difference, namely cycle I 68% increased in cycle II to 87%. Educational games create a fun, interactive learning atmosphere and can also motivate students, as seen from the positive responses given by students to learning

Through the PBL model, students are given the opportunity to be directly involved in relevant and significant learning activities. Educational game media Duck Race and Wordwall make vocabulary materials and learning experiences interesting and in accordance with the 21st century learning style.

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