



RESEARCH ARTICLE

THE INFLUENCE OF TECHNOLOGY-BASED LEARNING MEDIA AND VOCABULARY MASTERY TOWARD ENGLISH SPEAKING SKILL (EXPERIMENT AT VOCATIONAL SCHOOLS IN MAJALENGKA)

Dian Komaida,

Universitas Indraprasta PGRI

Jalan Nangka No. 58 Jakarta Selatan

Sumaryoto

Universitas Indraprasta PGRI

Jalan Nangka No. 58 Jakarta Selatan

Lusiana Wulansari

Universitas Indraprasta PGRI

Jalan Nangka No. 58 Jakarta Selatan

e-mail: diankomaida@gmail.com¹

e-mail: sumaryoto2512@yahoo.com²

e-mail: lusianawulansari58@gmail.com³

Abstract: The purpose of this study is to ascertain the following: 1) the influence of vocabulary mastery on English speaking ability; 2) the influence of learning media on English speaking ability; and 3) the combined effect of vocabulary mastery and learning media on the English-speaking ability of Majalengka State Vocational School students. The experimental method is the one employed in this study. The 859 participants in this study were divided into 221 class XI students from SMK Negeri and 638 class XI students from another SMK Negeri in Majalengka. Additionally, 120 students in total were used as research samples from the population. There were sixty pupils in the experimental class and sixty in the control class that made up the research sample. Following the instruction of Edpuzzle and YouTube learning materials for the experimental group and Edpuzzle learning materials for the control group, the following results are shown: 1) learning media significantly affects the capacity to speak English, as demonstrated by a sig value of 0.000 F count 17, 046. 2) Vocabulary expertise has a substantial impact on one's ability to speak English, as demonstrated by the sig value -0.000 < 0.05 and F count 15.779.

Keywords: learning media; vocabulary mastery; English speaking skill

PENGARUH MEDIA PEMBELAJARAN BERBASIS TEKNOLOGI DAN PENGUASAAN KOSAKATA TERHADAP KETERAMPILAN BERBICARA BAHASA INGGRIS (EKSPERIMEN PADA SEKOLAH VOKASI DI MAJALENGKA)

Abstrak: Tujuan dari penelitian ini adalah untuk mengetahui hal-hal berikut: 1) pengaruh penguasaan kosakata terhadap kemampuan berbicara bahasa Inggris; 2) pengaruh media pembelajaran terhadap kemampuan berbicara bahasa Inggris; dan 3) pengaruh gabungan penguasaan kosakata dan media pembelajaran terhadap kemampuan berbicara bahasa Inggris siswa SMK Negeri Majalengka. Metode eksperimen adalah metode yang digunakan dalam penelitian ini. Sebanyak 859 partisipan dalam penelitian ini dibagi menjadi 221 siswa kelas XI dari SMK Negeri dan 638 siswa kelas XI dari SMK Negeri lain di Majalengka. Selain itu, total 120 siswa digunakan sebagai sampel penelitian dari populasi. Ada enam puluh siswa di kelas eksperimen dan enam puluh di kelas kontrol yang menjadi sampel penelitian. Berdasarkan petunjuk penggunaan media pembelajaran Edpuzzle dan YouTube untuk kelompok eksperimen serta media pembelajaran Edpuzzle untuk kelompok kontrol, diperoleh hasil sebagai berikut: 1) media pembelajaran berpengaruh secara signifikan terhadap kemampuan berbicara bahasa Inggris, dibuktikan dengan nilai sig sebesar 0,000 F hitung 17,046. 2) Penguasaan kosakata berpengaruh secara signifikan terhadap kemampuan berbicara bahasa Inggris seseorang, dibuktikan dengan nilai sig $-0,000 < 0,05$ dan F hitung 15,779.

Kata kunci: media pembelajaran; penguasaan kosakata; keterampilan berbicara bahasa Inggris

INTRODUCTION

The main pedagogical objective of teaching English is to enable pupils to participate successfully in society and acquire a variety of social language practices. Education is one crucial factor. From elementary school through middle school and university education, English is a topic that is required to be taught in the curriculum. Given the circumstances and environment in the target location, English is a subject that is vital for pupils to learn in school. Increasing language knowledge is one technique to advance and increase speaking abilities. The key component of understanding ideas and concepts is vocabulary. Because it is a component of all language skills, vocabulary plays a crucial function. Learning vocabulary is a crucial part of learning any language. Vocabulary mastery is also necessary for public communication.

Occurrences such as this are beneficial for students when they take place. Students have the ability to effectively communicate their thoughts. Moreover, they have the ability to comprehend written content rapidly and precisely, communicate and articulate effectively, and also compose essays on various fresh subjects. Alternatively, students will have restrictions in performing these tasks if they lack an extensive vocabulary. To expand vocabulary successfully in the English language learning process at school, it is essential to first master basic vocabulary skills. Choosing the right teaching methods and materials is crucial in improving vocabulary acquisition, as well as fundamental skills. When choosing teaching techniques and resources, teachers must also take into account factors like students' cognitive skills, prior knowledge, confidence levels, language proficiency, desire to learn, and motivation for learning.

According to the findings from observations, it is evident that students' engagement in English learning is currently insufficient, impacting their proficiency in English vocabulary. This situation may occur due to the fact that the teaching methods are still dull and uninteresting, resulting in students having a very limited vocabulary proficiency. There appears to still be a deficiency in utilizing media and educational methods. Additional learning can be achieved through the use of written exercises and practicing pronunciation of English words and grammar.

The quality of the student's learning process is greatly impacted by the selection of learning materials. According to Astuti, Dewati, Okyranida, and Sumarni (2019), the presence of educational materials can enhance students' engagement and participation during lessons. The selection of media and instructional approach is tailored to fit the student and school's situation (Bhakti, Astuti, &

Rahmawati, 2020). In order to address this, it is necessary to utilize strategies in English learning that motivate and engage students in the learning process, such as the Word Square instructional approach. The Word Square Learning Model is a model for learning that involves answering questions and matching them carefully to answer boxes (Mawar, Harida, & Siregar, 2017). It's like solving a crossword puzzle, but the twist is that the answer is already present but hidden among extra boxes filled with random letters/numbers meant to confuse or divert attention. The Word Square learning model helps students grasp subject matter, develop discipline, cultivate critical attitudes, and promote effective thinking (Ulfah, Bintari, & Pamelasari, 2013).

This instructional approach can encourage and empower students with the content being taught. Engaging in accuracy and precision when responding to questions and seeking solutions in worksheets (Qonitah, Mulyani, & Susilowati, 2013). The main focus is on thinking efficiently and determining the most suitable solution. Based on the background of the aforementioned issue, the author felt compelled to address it through a research study titled "The Influence of Learning Media and Vocabulary Mastery toward English Speaking Skills" (Experiment at Vocational School Students in Majalengka).

RESEARCH METHOD

The method utilized in this study involves conducting experiments to observe and analyze the outcomes following the administration of treatments on the independent variables. This research is unique in that it contrasts two groups with identical subjects. This study aimed to assess the extent of impact from the independent variables (learning materials and vocabulary proficiency) on the dependent variable (English speaking skills). The initial group was considered an experimental class that utilized Edpuzzle technology for learning, whereas the second group was a control class that utilized YouTube technology for learning. This medium is utilized under the fundamental belief that the writer recognizes the vital importance of mastering vocabulary through learning media for attaining optimal speaking skills in English classes.

By analyzing the data obtained, we can determine the extent to which the independent variable affects the dependent variable numerically, as this study employs a quantitative methodology. The variables being studied include independent variable 1, referred to as the treatment variable (A), which consists of Edpuzzle learning media and YouTube learning media.

Data collection methods are used to identify an activity connected to the research situation. Researchers used the posttest only control group design technique, with control and treatment groups, to assess the direct effects of learning media usage. The methods of collecting data in this study include:

1. Conduct learning using technology-based learning media as an experimental class at SMK Negeri for XI TKR 4, and at another SMK Negeri for XI TKR 5 and XI TKR B as a control class.
2. The posttest consists of multiple-choice questions and is utilized to assess cognitive abilities and gather information on vocabulary proficiency. The evaluated aspects are based on the cognitive indicators included in the Learning Implementation Plan (RPP). 30 questions are created for testing objectives. A score of one is assigned to each question answered correctly, while a score of zero is given to incorrectly answered questions.
3. Oral presentation, in this presentation students communicate/speak in English using technology-based learning media to measure students' English-speaking skills and obtain data about speaking skills.

Descriptive data analysis involves summarizing data in a concise manner to provide a brief overview. The goal is to offer an early grasp of fundamental data characteristics like mean, median,

mode, and data distribution. In addition, this method can also be utilized to search for connections between variables, create forecasts using regression analysis models, and compare average sample data.

Prior to testing the hypothesis, the data collected from the research results is initially tested for data analysis requirements, particularly the normality test. The Lilliefors test was used to check for normality in this study. Once the normality test is completed and shows that the research data follows a normal distribution, a homogeneity test will then be conducted on the research sample. In order to conduct difference analysis, the data must meet the assumption of normal distribution and homogeneity of variance. Homogeneity testing, as stated by Supardi (2012: 138), is conducted to assess the variance capability of each data group. Homogeneity of data was assessed with the Levene test at a 0.05 significance level.

Data analysis utilizing two-way ANOVA is a statistical technique for analyzing research data with a two-factor design. It is understood that in this study, two variables are utilized to determine the dependent variable. Based on the hypothesis above, the statistical hypothesis can be stated as follows:

- a. $H_0: \mu_{AI} = \mu_{A2}$
 $H_1: \mu_{AI} \neq \mu_{A2}$
It means :
 H_0 : there is no influence of learning media on speaking ability
 H_1 : There is an influence of learning media on speaking ability
- b. $H_0: \mu_{BI} = \mu_{B2}$
 $H_1: \mu_{BI} \neq \mu_{B2}$
It means :
 H_0 : there is no influence of vocabulary mastery on speaking ability.
 H_1 : There is an influence of vocabulary mastery on speaking ability.
- c. $H_0: \text{Int } A \times B = 0$
 $H_1: \text{Int } A \times B \neq 0$
It means :
 H_0 : there is no influence of learning media and vocabulary mastery on speaking ability.
 H_1 : There is an influence of learning media and vocabulary mastery on speaking ability.

RESULTS AND DISCUSSION

The research results show that there are differences in students' English-speaking abilities in lessons when viewed from learning media, Edpuzzle learning media and vocabulary mastery.

The Effect of Using Edpuzzle Learning Media with YouTube on English Speaking Ability

The research results show that the group using learning media between Edpuzzle and YouTube learning media obtained calculated $F = 17.046 > F_{\text{table}} = 3.15$. In this way, the first hypothesis has been tested significantly and can be accepted. Therefore, it can be concluded that there is a significant difference in the influence of using Edpuzzle learning media with YouTube on English Speaking Ability. The average English-speaking ability taught using Edpuzzle learning media is higher than those taught using YouTube learning media.

There are lots of media that can be used in the learning process, for that we need to choose. This selection is important in order that when we choose learning media as a tool to convey messages, it really becomes an effective tool in achieving learning goals. Principles in selecting learning media that might result in a constructive learning process include a). Suitability of media to learning objectives, b). Suitability of media to the learning environment, c). Suitability of media to learning characteristics, d). Ease and implementation of the method, e). Media efficiency in relation to time, energy and costs, f). Security for learning, g). Media skills in activating students.

In each subject, the level of difficulty in delivering the material varies greatly. There is material that is easy to convey without learning media, there is also material that must use learning media as a tool to convey it. In certain materials, students find it difficult to receive learning without using media. If the teacher does not have the skills to explain material well, it is recommended to use learning media as a teaching aid to achieve optimal learning goals. Media has a function to overcome barriers in communication. Barriers to communication include physical limitations, passive attitudes, and learning facilities. Obstacles in communication that often arise include verbalism, misinterpretation, distracted attention, and lack of response.

The Effect of Vocabulary Mastery on English Speaking Ability.

The research results show that high and low vocabulary mastery obtained $F_{\text{count}} = 15,779 > F_{\text{table}} = 3.15$. Thus, the second hypothesis has been tested significantly and can be accepted. Therefore, it can be concluded that there is a significant difference in the influence of high and low vocabulary mastery on English speaking skills. The average English-speaking ability of those with high vocabulary mastery is higher than those with low vocabulary mastery.

Students who have high vocabulary mastery will tend to feel happy, attentive and serious in following the lessons given by their teacher. For them, every difficulty in learning is not something to be afraid of, in fact they will overcome all difficulties happily and not make learning a burden. Children who have high vocabulary mastery generally enjoy learning English, so that they learn not only to fulfill the duties and obligations of the teacher, but they make learning a need that must be met. For them, it makes no difference whether they should be given a reward or no reward in learning. The process of learning English using learning media that utilizes media devices as a learning tool is a form of attraction for students to be more attentive in the teaching and learning process. In using learning media, students are also trained to be able to present with material that has been designed. This kind of condition is something that is common among students who have high vocabulary skills.

Based on this framework of thinking, it is thought that for students who have high vocabulary mastery there is no difference between learning using Edpuzzle or YouTube media. The use of Edpuzzle media is considered the same as conventional learning, because they are used to learning independently and creatively and are always eager to achieve. Therefore, in groups of students who have high vocabulary mastery, it is assumed that their speaking abilities will be the same if they learn using interactive or conventional media.

Students who have low vocabulary mastery will generally be lazy about studying, tend not to like assignments and work related to English lessons. They feel happy if the English teacher is not present. Thus, there is no enthusiasm for independent learning and increasing knowledge. If there are homework assignments or other assignments, they are usually only done during class, namely by copying the results of their friends' work. Because usually students who have low interest in learning, do homework assignments only to fulfill their obligations, because they are afraid of the teacher. They don't care whether the task is meaningful or not.

Students who have low vocabulary mastery require the role of teachers who have high creativity in delivering lesson material so that it will encourage students to learn English. Learning English using the Edpuzzle learning media is thought to be appropriate for students whose vocabulary mastery is low, because in using this media, students are given stimulation in researching new vocabulary according to what they see and hear. This is a challenge and attraction in itself in following the explanation of the material being studied. Meanwhile, in learning English with a conventional approach, students will feel more bored and burdened with things that are routine and there are no variations in learning.

The interaction effect of using Edpuzzle learning media and vocabulary mastery on English speaking skills

The research results show that the group using learning media and vocabulary mastery obtained $F_{\text{count}} = 30.459 > F_{\text{table}} = 3.15$. Thus, the third hypothesis was significantly tested and accepted. Therefore, it can be concluded that there is a significant interaction between the use of EdPuzzle learning media and vocabulary mastery on English speaking ability.

In the learning process, the use of media is very necessary, because media has a big role in influencing the achievement of learning objectives. This is because learning does not always only come into contact with concrete things, both in concept and in fact. Therefore, the media has a role in changing abstract things. One indicator of an effective teacher is a teacher who can master educational material (pedagogy) and subject matter. For teachers, mastery of subject matter must be balanced with how to deliver the lesson well, in other words teachers are also expected to master the use of learning media related to teaching material.

The use of learning media aims to make it easier to channel messages (lesson material) from teachers to students. In using learning media, it is possible to provide convenience for teachers and students in the teaching and learning process, both individually and in groups. In other cases, the use of learning media can stimulate students' thoughts, feelings, concerns and interests in such a way that it helps the learning process occur. In using learning media, students are invited to be more creative in how they learn and think more concentrated in following the learning material presented by the teacher, so that the learning objectives that have been planned in the design of the learning media will be achieved, so that their ability to speak English will eventually improve.

The teaching methods used vary, namely in addition to using the lecture method as an introduction, interspersed with the question-and-answer method. In using this method, students are given time to prepare to study certain material. In the end, students are given the opportunity to present and convey the material to their friends, before finally the teacher gives the final conclusion in the teaching and learning process of certain material.

The above phenomenon is different from the conventional approach which is more monotonous. In the conventional approach, the teacher always starts learning with formal and procedural explanations and the teacher is central to the teaching and learning process, then students are given example questions and exercises. With the practice questions given, students are asked to repeat the steps of the standard procedure as if it were a binding rule that must be carried out by students, regardless of whether the learning is meaningful or not.

Acquisition of knowledge and skills, changes in attitudes and behavior can occur due to interactions between new experiences and experiences previously experienced. The use of learning media is a starting point in learning by teachers and students. The method used in learning using learning media will be different from conventional approaches. The use of learning media in the teaching and learning process will clearly have an influence on learning. By using learning media, students will be more enthusiastic and take the initiative to learn, while in the conventional approach students tend to passively listen to information and explanations from the teacher.

In each subject, the level of difficulty in delivering the material varies greatly. There is material that is easy to convey without learning media, there is also material that must use learning media as a new tool for conveying it. In certain materials, students find it difficult to receive learning without using media. If the teacher does not have the skills to explain material well, it is recommended to use learning media to achieve optimal learning goals.

CONCLUSIONS

Based on the results of hypothesis testing and discussion of research results, the conclusions of this research can be presented in three major findings. At first, there is a significant influence of learning media on the English-speaking ability of State Vocational School students in Majalengka, this is proven by the $\text{Sig.} = 0.000 > 0.05$ $F_{\text{calculate}} 17.046, 2)$. Moreover, the second result was there is a significant influence of vocabulary mastery on

the English-speaking ability of State Vocational School students in Majalengka, this is proven by the sig value. = 0.000 > 0.05 F calculate 15.779. Finally, there is a significant influence of learning media and vocabulary mastery on the English-speaking ability of State Vocational School students in Majalengka, this is proven by the Sig. = 0.000 > 0.05 F calculate 30.459.

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