

Enhancing Students' Vocabulary Mastery Through the Integration of Digital Platform Media in the Form of Authentic Materials Development

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Abstract— This study aimed at investigating the effect of authentic materials development integrated with digital platform media in enhancing students' vocabulary mastery of English for accounting. There are 154 students of accounting department involved in this study. This research is experimental research with implementing paired samples t-test as the measurement tool in knowing the authentic materials development integrated with digital platform media in enhancing students' vocabulary mastery of English for accounting by finding the t score and the sig value before and after the implementation of the teaching method. The result of this study showed that authentic materials development integrated with digital platform media had a significant effect on the student's vocabulary mastery. It was indicated by the value of the sig and t result from paired samples t-test analysis which was showed 0.000 as the sig value and -20.306 as the t count. The result of sig value which is below 0.05 and the t-count which is above t-table were clear indicators to argue that authentic materials development integrated with digital platform media significantly impacted the student's vocabulary mastery. In this case, the variable of vocabulary mastery in English for accounting was improved significantly by the implementation of authentic materials development integrated with digital platform media. In addition, authentic digital media are also able to assist the students acquire new vocabulary in the learning process of English for accounting.

Keywords — *Authentic Materials Development, Vocabulary Mastery, Digital Platform Media.*

I. INTRODUCTION

One of the crucial elements of learning English is vocabulary. We speak a great number of words every day. Vocabulary is required to speak in English; therefore,

it is crucial to expand and have a wide vocabulary [1]. One finds it challenging to interact with people, convey thoughts or opinions, comprehend straightforward writings, and pay attention to instructions when they lack an adequate vocabulary [2]. As stated by Rosyidah & Giyoto [3], vocabulary is the foundation for learning English and is one of the components of language; therefore, there cannot be a language without vocabulary. As stated by Viera [4], Students require vocabulary to strengthen their English abilities in speaking, listening, reading, and writing. Vocabulary knowledge is viewed as a crucial tool to master any language ability; it also adds to the understanding of written and spoken materials. For students, particularly Indonesian students who view English as a foreign language, mastering vocabulary is not a simple task. According to Mthethwa [5], a typical method of instructional practice in language acquisition involves the use of a combination of text, music, graphics, video, or animation to teach vocabulary. Students will find it simpler and more enjoyable to study language as a result.

The terms "authentic materials" relate to images, photographs, video, and radio. It is a useful resource to be utilized in teaching and learning process notably to boost students' vocabulary proficiency. Authentic materials are real items from students' life that the instructor brings into the classroom. Students become more accustomed to the target language by studying English using real resources, particularly when acquiring vocabulary. According to Nuriyya [6], students connect with the outside world and the real world by employing authentic resources, they become interested when dealing with real language. Nuriyya also asserts that using real resources inspires students to acquire new words. Lessons will be more relevant and effective for language learners if genuine

resources like texts, music, and audio-visual materials are used in the teaching and learning process [7]. In addition, according to experts, the use of authentic materials can have a positive impact on the development of students in the classroom both in improving writing, reading and vocabulary mastery [2] [7] [8] [9] [10] [11] [12] [13] [14] [15]. According to the literature review, authentic resources can give students access to real linguistic and cultural inputs in the target language; nevertheless, teachers must effectively educate students to enable efficient input processing [14].

Authentic-based teaching materials created by integrating the digital platform are assembled into an e-teaching module that focuses on studying foreign languages, particularly vocabulary for accounting students. Mastery of this vocabulary can subsequently increase the capacity to communicate successfully with colleagues in the industry and the public on topics linked to accounting in general, such as drafting reports and papers, expressing statements, articulating or reacting to orders, having an international viewpoint, and being able to communicate in a timely way in a cross-cultural setting. This is also corroborated by Richards [16], who mentions various reasons for employing realistic materials in the classroom, including: (1) preparing students for real world, (2) meeting students' needs, and (3) influencing students' motivation. favorably, (4) they motivate instructors to use efficient teaching techniques, and (5) they offer real cultural knowledge. As a result, using authentic materials enables students to understand how the language they learn in class and the language they use in everyday life are related. As a result, employing authentic content will assist students in using foreign languages, particularly English, in the accounting area, in accordance with real-world and work-related conditions and scenarios.

Considering the research background, this study aimed at knowing the effectiveness of authentic materials development integrated with digital platform media in enhancing students' vocabulary mastery of English for accounting in managerial accounting study programs at the accounting department. Moreover, the effect of this authentic materials development on student's vocabulary mastery in the vocational college is infrequently analyzed and taken as a research study in recent years. Hence, from the result of the use of authentic materials completed by some researchers previously, today's study believes and hypothesizes that the authentic materials development can improve the student's learning outcome especially on the student's vocabulary mastery in English for accounting.

II. METHODOLOGY

A. Research Design

This study is a descriptive statistical quantitative study with a quasi-experimental approach. The use of methodologies and processes to perform observations in a study that is structured similarly to an experiment, but the circumstances and experiences of the participants lack control because the study is confined to random assignment, including comparisons or control groups, is referred to as a quasi-experiment [17]. The quasi-experiment employed in this study is Quasi-Experiment: One-Group Pretest-Posttest Design, which is a quasi-experiment in which a group is measured and observed before and after treatment is administered, as indicated in the picture below [18]:

The One-Group Pretest-Posttest Design		
<i>O</i>	<i>X</i>	<i>O</i>
Pretest	Treatment	Posttest

The dependent variable was examined as a group before (pre-test) and after (post-test) treatment was administered in the One-Group Pretest-Posttest Design. The group's scores are compared before and after therapy by comparing the two sets of results. The benefit of this experiment is that it allows us to compare data before and after therapy on the same person using the same measuring tool [18]. The participants in this study were the State Polytechnic of Bali's managerial accounting students. There were 154 students represented in the entire group.

This research aims at improving student's vocabulary mastery of English for accounting by employing authentic materials development. Each student was given a pretest and posttest in the form of a questionnaire, and the answers were compared to determine the degree of the student's vocabulary mastery. The questionnaire was utilized as a pre-test to determine student vocabulary mastery, which was then compared to the results of administering the same questionnaire following treatment from a teaching and learning process aided by the deployment of authentic materials development.

B. Data Analysis Method

There are 25 questions in this survey regarding accounting vocabulary in English. The students were given a questionnaire as a pre-test to determine their level of English vocabulary mastery for accounting before the lessons were taught through the development of authentic materials. Furthermore, authentic materials development was implemented in 12 sessions with three subjects each, and the same questionnaire was used to determine whether or not there was an improvement. To determine if the use of authentic materials development produces significant outcomes or not, the pre-test and post-test findings were evaluated using a paired-samples t-test.

The validity and reliability of the instruments used in this investigation were evaluated. A validity test is employed to determine the validity of a question or item. Each question on the questionnaire must be valid in order

to be able to predict with certainty what will be studied [19]. The approach involves combining the questionnaire score with the sum of the individual question scores, and comparing the results with the r table or a significance value of 5% (= 0.05). If the value (p) 0.05 or the r count is greater than the r table, the method is deemed legitimate. In addition, [19] defines a reliability test as a test that demonstrates the degree to which the stability and consistency of the measuring devices employed in the research, offer essentially consistent findings if these measures are repeated. Using the Cronbach's Alpha approach, it is possible to test an item's reliability. The internal consistency will be more dependable if the outcome is near to 1.

III. FINDINGS AND DISCUSSION

A. Findings

The paired samples t-test is used to examine the findings of the analysis performed using the SPSS 25 program to determine if the authentic material-based electronic module integrated with digital media has an effect on improving vocabulary in the English for accounting course.

Table 1 Descriptive statistics of pre-test and post-test

	N	Minim um	Maxim um	Mean	Std. Deviation
pretest	154	40,00	90,00	61,0390	11,52825
posttest	154	60,00	95,00	70,1299	7,45242
Valid N (listwise)	154				

Source: Processed data, 2022

The average score of 154 students before being provided an electronic module based on authentic material development as teaching material demonstrates that the average level of vocabulary mastery in the course is 61.0390 in the output of the data processing results acquired. Meanwhile, after including real digital-based teaching resources in the form of electronic module into the learning process, students' average vocabulary mastery improved to 70.1299. Standard Deviation is a measure of dispersion that represents the data's standard deviation from its mean. If the standard deviation is modest, it suggests that the population sample values are grouped around the mean value. Because the number is nearly identical to the mean, we may assume that every member of the sample or population shares something. In this example, the standard deviation of the Post-Test data (7.45242) is less than that of the Pre-Test data (11.52825). A big standard deviation suggests a substantial variance between population members. As a result, a high standard deviation is seen as negative.

Table 2 Analysis result of Paired Samples Correlations

Pair 1		N	Correlatio n	Sig.
pretest & posttest		154	0,917	0,000

Source: Processed data, 2022

Table 3 Data interpretation result from Correlation Coefficient

Correlation coefficient, r (positive/negative)	Interpretation
0,001-0,200	Very weak/Low correlation
0,201-0,400	Weak/Low Correlation
0,401-0,700	Correlation is quite strong/High
0,701-0,900	Strong/High correlation
0,901-1,000	Very strong/High correlation

Source : Guilford J.P, *Fundamental Statistics in Psychology and Education*

This study is used to identify the strengths and weaknesses of the connection before and after receiving an electronic module based on authentic content and combined with a digital platform. Based on the findings of the investigation, the correlation coefficient (R) was calculated to be 0.917. Furthermore, based on the high-low association, the correlation coefficient (R) of 0.917 falls between 0.901 and 1,000, indicating a very strong/high correlation. The probability value is also still less than 0.05. (The data shows the significant value of the output is 0.000). This signifies that there is a strong or high positive relationship between before and after receiving an electronic module based on genuine content coupled with a digital platform in the classroom learning process.

Table 4 Paired Samples Test

Mea n	Paired Differences				t	df	Sig. (2- taile d)
	Std. Devi ation	Std. Error Mean	95% Confidence Interval of the Difference				
			Low er	Upper			

Pair	pret	-9,09	5,56	0,448	-9,98	-	-	153	0,00
1	est - postt est					8,206	20,	306	

Source: Processed data, 2022

This test is used to assess whether there is a difference in the average of two paired groups of samples (related). The idea here is that the sample was subjected to two equal treatments so that the effect of receiving an electronic module based on authentic content combined with a digital platform in the classroom learning process could be determined. The following are the statistical test steps:

1. Hypothesis Formulation

H0: it indicates that there is no significant difference between before and after receiving an electronic module based on genuine content connected with a digital platform in the learning process in class.

H1: it signifies that there is a substantial difference between before and after receiving an electronic module based on genuine content coupled with a digital platform in the learning process in class.

2. Decision Making

The following is the decision-making framework:

a) Based on the comparison of t count and t table

- If $t\text{-count} < t\text{-table}$ or $-t\text{-count} < -t\text{-table}$ then H0 is accepted
- If $t\text{-count} > t\text{-table}$ or $-t\text{-count} > -t\text{-table}$ then H0 is rejected

Significance level was determined using 95% confidence level or 5% error rate ($\alpha = 0.05$). Where the 95% confidence level and the value of sig. (α) = 0.05, then the value of df (degrees of freedom) is $(nk) = 154 - 1 = 153$. The test is carried out on two sides to determine whether the average pretest result is the same as the post-test or vice versa. Therefore, the result can be greater (+) or smaller (-).

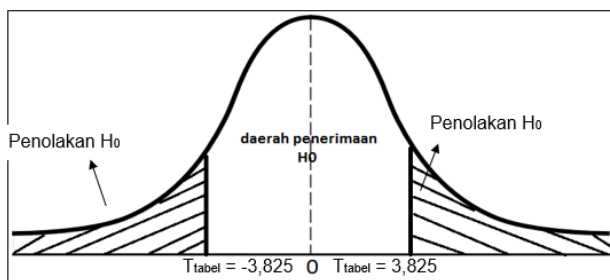


Figure 1. Testing area

At the 95% confidence level, the study's results using the SPSS 25 statistical program revealed that the t-count -20.306 was bigger than the t-table, which was -3.825. Based on these findings, H0 is rejected, indicating that there is a substantial difference between before and after receiving an electronic

module based on authentic content combined with a digital platform in the learning process in class.

b) Based probability value

For the side test using a 2-sided test, the test criteria are seen from the sig (α) value where:

- If the value of sig (α) < 0.05 , then H0 is rejected.
- If the value of sig (α) > 0.05 , then H0 is accepted.

According to the output above, the significance level before and after students obtain the digital module is 0.000, which is less than 0.05. As a result, H0 is rejected but H1 is approved. This suggests that there is a major difference in the learning process in the classroom before and after receiving an electronic module based on real content coupled with a digital platform.

Based on the two judgments given in the results section, it is possible to infer that an authentic material-based electronic module integrated with a digital platform is helpful in boosting students' vocabulary. This is demonstrated by the sig value of 0.000 and the t-score of -20.306. These findings strongly indicate that the use of authentic material-based electronic modules integrated with digital platforms has a major impact on students' English vocabulary mastery. Furthermore, real digital media can assist students in acquiring new vocabulary (vocabulary) in the English for accounting learning process.

B. Discussion

The findings of this study emphasize the effect of the authentic materials development on students' vocabulary mastery. Based on the results of the paired sample t-test above, it turns out that there is a significant effect of authentic materials development on the students' vocabulary mastery in managerial accounting study program. The use of authentic materials in the form of e-module which is integrated with various learning media circumstances such as online and offline class. The integration of some modern media and platform in this e-module was able to assist the students in comprehending the vocabularies used in authentic materials. This is in line with Nuriyya [6] which states that students connect with the outside world and the real world by employing authentic resources, they become interested when dealing with real language. Nuriyya also asserts that using real resources inspires students to acquire new words. Lessons will be more relevant and effective for language learners if genuine resources like texts, music, and audio-visual materials are used in the teaching and learning process [7]

Furthermore, this electronic module is built on authentic teaching resources and focuses on real teaching materials from students' lives that the instructor brings into the classroom. Thus, studying English via authentic materials acquaints students with the target language, particularly when acquiring vocabulary. According to the

results of the study using SPSS 25, the significance level before and after students get the digital module is 0.000, which is less than 0.05. As a result, H₀ is rejected but H₁ is approved. This result indicates that there is a considerable effect on the English for accounting course before and after the deployment of this e-module. As a result of using this e-module, pupils' vocabulary proficiency in English for accounting improves.

Moreover, managerial accounting study program students that got the implementation of the authentic materials development in their learning process were students from generation Z, born between 1995 and 2010. This suggests that this generation includes personalities that enjoy technology, are adaptable, intelligent, and more accepting of cultural diversity. In a virtual world, this generation is also internationally linked and networked. When compared to the preceding generation, Gen Z is more self-sufficient. Generation Z youngsters frequently make decisions on their own, without taking into account the responsibilities and considerations of others. Not only that, but Gen Z youngsters desire to study and develop on their own. Learning resources that formerly required to be searched at the library may now be conveniently accessed solely through internet services. This indicates that the characteristics of the Z students are in adapted with the authentic materials which are integrated with various learning media platform. In addition, authentic digital media are also able to assist the students acquire new vocabulary in the learning process of English for accounting.

IV. CONCLUSION

The results showed there is a there is a significant effect of authentic materials development on the students' vocabulary mastery in managerial accounting study program. The use of authentic materials in the form of e-module which is integrated with various learning media platforms approved to be used in dynamic class circumstances such as online and offline class. The integration of some modern media and platform in this e-module was able to assist the students in comprehending the vocabularies used in authentic materials. According to the results of the study using SPSS 25, the significance level before and after students get the digital module is 0.000, which is less than 0.05. As a result, H₀ is rejected but H₁ is approved. This result indicates that there is a considerable effect on the English for accounting course before and after the deployment of this e-module. As a result of using this e-module, pupils' vocabulary proficiency in English for accounting improves. The students who were the research sample were included in the generation Z category, are also supported this positive result, where this generation is very easy to adapt to technology so it is easy to comprehend the authentic

materials which are integrated with various media platform in mastering new vocabulary.

The suggestion that must be made according to the results of the research is that enhancing techniques for teaching high-order thinking abilities that are paired with authentic content. Furthermore, attempts to enhance the performance of genuine resources in boosting students' understanding of the relevance of these media and instructional materials in improving English learning outcomes must be continued on a constant basis.

ACKNOWLEDGMENT

The author would like to express their gratitude to everyone who helped them write this article. Special thanks go to the State Polytechnic of Bali for funding the authors' research, which included all managerial accounting students as respondents.

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