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Interactive Vocabulary Material for Indonesian EFL Vocational High School Students

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Abstract: *This research aims to develop interactive vocabulary materials for Indonesian EFL High School students, therefore, the sample of this study was the tenth-grade students of vocational high school in Bandar Lampung. This study conducted as research and development design, which includes five stages, i.e, Analysis, Design, Development, Implementation, and Evaluation. Data were collected through interview with the English teachers, students' need analysis questionnaires, product validation questionnaires, and expert validation sheets. The results indicate that the developed materials, in terms of content (material and language), are categorized as very good, and the media aspects are also categorized as very good. These findings show that the interactive vocabulary materials are valid and appropriate to be used in the teaching and learning process.*

Keywords: *Interactive Media, Vocabulary Acquisition, Vocabulary Material, Indonesian EFL Students*

INTRODUCTION

This study is motivated by the curriculum reform in Indonesia, particularly the implementation of the Merdeka Curriculum, which emphasizes flexibility, character development, and learner-centered instruction (Rani et al., 2023). Teachers now act as facilitators, while students are expected to explore knowledge independently. However, students face challenges in learning English, especially in vocabulary mastery. Limited vocabulary hinders their ability to comprehend texts, write sentences, listen to stories, and communicate effectively. Teachers also rely heavily on textbooks, which are often seen as less engaging.

Vocabulary is considered as the foundation of language. Nation (2002)

emphasizes that vocabulary size directly affects reading and speaking abilities, while Wilkins (in Thornbury, 2002) asserts that “without grammar very little can be conveyed, without vocabulary nothing can be conveyed.” Moreover, Cameron (2001) highlights that vocabulary learning also supports grammar acquisition. These theories indicate that vocabulary plays a crucial role in overall language proficiency.

Given these challenges, there is a need to develop interactive materials that are engaging, accessible, and supportive of independent learning. Interactive vocabulary material is expected to increase students’ motivation, provide meaningful learning experiences, and help them master essential vocabulary. As Smaldino et al. (2014) note, interactive materials integrate text, images, audio, and activities that actively involve learners, making learning more effective.

The objectives of this research are to (1) identify students’ target needs in vocabulary learning, (2) analyze their learning needs, and (3) develop appropriate interactive vocabulary materials. The results are expected to benefit both students, by enhancing their vocabulary mastery, and teachers, by providing supplementary resources to improve classroom instruction. Thus, researcher provide interactive material that will help students become more proficient in vocabulary mastery. It is anticipated materials will assist students in learning language on their own, and it can save classroom time.

Vocabulary is defined as the collection of words in a language (Hornby, 2000; Nunan, 1988). Thornbury (2002) explains that vocabulary is a large collection of items that becomes meaningful when guided by language rules. Richards and Schmidt (2002) also describe it as lexemes, including words, compounds, and idioms. This shows that vocabulary is central to communication. As Wilkins (in Thornbury, 2002) states: “Without grammar very little can be conveyed, but without vocabulary nothing can be conveyed.”

Knowing a word means understanding its form, meaning, usage, and collocations (Cameron, 2001; Nation, 2008). Vocabulary learning requires strategies such as repetition, retrieval, spacing, personal organization, and motivation (Thornbury, 2002). Several teaching methods are also discussed: Grammar Translation, Direct Method, Audio-Lingual, and Communicative approaches. The Direct Method was chosen because it emphasizes visuals, realia, and associations, which are effective for beginners. The chapter also introduces interactive materials, defined as multimedia-based tools combining text, images, audio, and animation to engage learners (Vaughan, 2011; Smaldino et al., 2014). Effective design requires clear navigation, feedback, graphics, and learner control (Stemler, 1997).

Finally, the frame of thinking shows that interactive materials can address problems of vocabulary size, motivation, and limited classroom time, thus supporting students’ independent and engaging language learning.

METHOD

This research applied the Research and Development (R&D) method to create interactive vocabulary learning material for tenth grade students of SMK Taman Siswa, one of a vocational high school in Bandar Lampung. The R&D model used was adapted from Lee and Owens (2004), which includes five stages: analysis, design, development, implementation, and evaluation.

The research subjects were 36 students and one English teacher, while the object was the development of interactive vocabulary material. Data were collected through questionnaires, interviews, and observations to identify students' target needs and learning needs. Need analysis showed that students faced problems in vocabulary mastery, limited time, and low motivation, which required alternative learning resources. In the design stage, a course grid, draft, and flowchart were prepared. The development stage involved collecting materials such as images, sounds, and animations, then assembling them. Expert validation ensured that the product aligned with curriculum standards.

Next, the implementation stage tested the product with a small group of students, followed by revisions based on their feedback. Finally, the evaluation stage used expert and student questionnaires to refine the final product. Thus, this methodology ensured that the developed material was valid, practical, and appropriate for classroom use.

To determine the suitability of interactive learning material, a Likert scale assessment was used. The data were collected in the form of numbers, then interpreted into qualitative interpretation (Sugiyono, 2006). The data obtained were analyzed descriptively using quantitative data conversion to determine the feasibility of the interactive material being developed. This is to find out whether revision is necessary or not.

FINDINGS AND DISCUSSION

The findings of this study focus on students' needs, expert validation, and students' feedback regarding the developed interactive vocabulary materials. The needs analysis revealed that most students (90.90%) required English for communication, and their biggest weakness was vocabulary mastery (54.54%), followed by grammar (45.45%). Students also showed strong interest in vocabulary related to giving directions (57.57%) and narrative texts (48.48%).

Expert validation results showed that both content and media aspects of the developed materials were rated as "very good", proving their suitability for classroom use. Furthermore, students' feedback indicated high satisfaction, as they felt the materials were easy to use, motivating, and effective in supporting vocabulary learning. Overall, the findings confirmed that interactive vocabulary materials were appropriate and beneficial for students.

Table 1. Need Analysis

Aspect	Highest %
Necessities	Communicate (90.90%)
Materials Needed	Giving direction (57.57%)
Lack	Vocabulary (54.54%)
Vocabulary Ability	Poor (54.54%)
Wants	Meaning (72.72%)
Input	10-20 words (42.42%)
Procedures	Game (60.60%)
Setting	Outside classroom (63.63%)

Table 2. Expert Validation Final Draft

Aspect	Total Score	Mean Score	Category
Content	57	4.75	Very Good
Media	102	4.85	Very Good

Table 3. Students' Feedback

Aspect	Total Score	Mean Score	Category
Content	195	4.6	Very Good
Media	232	4.2	Very Good

The discussion highlights the findings of the research on developing interactive vocabulary materials for the vocational high school students. The needs analysis showed that 90.90% of students needed English to communicate, and the majority felt their main difficulty was vocabulary (54.54%), followed by grammar (45.45%). Students also expressed a strong desire to learn vocabulary related to giving directions (57.57%), narrative texts (48.48%), and describing people (36.36%).

The developed interactive material was validated by experts, and the results showed that both content and media aspects were categorized as “very good”. Students also responded positively, as the materials increased their motivation and made learning more engaging. The discussion emphasizes that interactive materials can effectively support vocabulary mastery because they combine text, images, audio, and animation, making learning more meaningful and enjoyable. In conclusion, the interactive materials were proven feasible and appropriate to be used as supplementary resources in teaching English vocabulary.

Based on the findings above, the unit of media was successfully developed. The method of teaching and learning with game principles were considered to develop the media. There were 3 main parts in each unit which are input, drill, and evaluation. For this unit, students would learn vocabulary from a specific story. The input was in the form of follow the instructions game completed with hint to help

students remember words and their synonyms and antonyms. The drill was in the form of synonym part, which had the purpose to practice recognizing things based on the story, and the evaluation part were in the form of guess the picture, fill in the blank and choose the correct answer. This was entitled “*How the Kangaroo got its pouch*”.

After the development of the first draft was completed, the next phase was the expert judgment. The expert judgment had the purpose to evaluate and to measure the media to see whether it is yet appropriate or not. The result of the expert judgment showed that the media was appropriate even though there were some revisions which had to be made to make it better. Related to the materials, they were sufficient, and in line with the core and standard competency. The language used was also appropriate and accurate. Moreover, the materials presentation was well arranged, effective, and attractive. Related to the media, the interface of the media was well balanced and in harmony. Meanwhile the media still needed an improvement in terms of its audio. Related to the other aspects of media, such as the picture and animation, interaction and feedback, and the navigation, the result showed that they were all already appropriate, even though there were some revisions which had also to be made.

The overall mean score of the first unit related to the content appropriateness was 4.6, and 4.05 related to its media appropriateness. Based on the Linkert scale, the content appropriateness was categorized as very good, and the media appropriateness was categorized as good. There were some revisions made in this unit based on the expert’s suggestions. Related to the media, the audio instrument needed to be replaced, since it did not work properly. The home buttons in all drill also needed to be fixed to be able to work properly. The last revision was related to change the picture on the slide 12-16.

After the revisions were done, the interactive media was evaluated by the expert again. The result showed that the final draft of the multimedia was appropriate. Thus, there is no revision needed. The result of the final draft evaluation also indicated that the content and media quality were all classified as very good. Furthermore, it was ready to be implemented.

In the implementation phase, six students were involved to try using the interactive media. They were asked to fill questionnaires to measure the appropriateness of the content and media in the interactive media then. Students were all very enthusiast in using the interactive vocabulary learning material. They felt excited since the concept of the interactive media is to play, not to learn. There was less burden which may decrease their motivation in learning. It could be seen that students were more interested in easier tasks, rather than more difficult tasks. But overall, they enjoyed playing the interactive media. The result of the evaluation from the students related to the content and media appropriateness indicated that the interactive media is already appropriate.

CONCLUSION

Based on the needs analysis, most students lacked vocabulary mastery and needed more engaging learning resources. The developed interactive materials, designed using texts, pictures, animations, and audio, were validated by experts and tested with students. Both experts and students rated the product as “very good”, proving that the materials are valid, practical, and effective for improving vocabulary learning. The researcher suggests that teachers use these interactive materials as supplementary resources to motivate students and support independent study. Students are encouraged to use the materials not only in class but also outside the classroom. Future researchers are recommended to explore other interactive media platforms and expand materials to different language skills beyond vocabulary.

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