

## DEVELOPMENT OF AN ENGLISH VOCABULARY POCKET BOOK FOR BUILDING INFORMATION MODELING DESIGN STUDENTS

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### *Abstract*

*This study aimed to develop, validate, and evaluate the effectiveness of an English vocabulary pocket book as a supplementary learning medium for students of the Building Information Modeling Design Department at SMK Negeri 2 Rantau Utara. The research employed a Research and Development (R&D) approach using the ADDIE model, consisting of Analysis, Design, Development, Implementation, and Evaluation. The participants were 35 Grade XI students. Data were collected through interviews, expert validation sheets, and pre-test and post-test assessments. The validation results indicated high feasibility, with scores of 92.2% from media experts and 91.4% from material experts. The findings also showed an improvement in students' vocabulary mastery, as the average score increased from 65.8 in the pre-test to 71.3 in the post-test. These results indicate that the developed pocket book is valid, practical, and effective for supporting vocabulary learning in vocational English education.*

**Keywords:** vocabulary learning, pocket book, ADDIE model, vocational education, learning media

### INTRODUCTION

Vocabulary mastery is foundational to success in learning the English language, as it directly influences a student's capacity to communicate effectively in both spoken and written forms. Esteemed scholars like Nation (2013) and Thornbury (2002) emphasize the importance of having a robust vocabulary, especially in a learning environment. In vocational high schools, where English instruction is increasingly expected to cater to specific academic and professional goals, the challenge of limited vocabulary can significantly hinder students, particularly those enrolled in technical departments, as highlighted by Richards and Rodgers (2014).

Observations conducted at SMK Negeri 2 Rantau Utara have indicated that the methodology employed in English vocabulary instruction tends to be predominantly reliant on textbooks. This approach often focuses heavily on rote memorization, which can limit students' engagement and understanding. Notably, the lack of interactive and engaging learning media has led to issues such as low vocabulary retention rates and difficulties with pronunciation among students. Such challenges point to an urgent need for innovative and practical learning materials that are aligned with the specific contexts of vocational education, a sentiment echoed by Harmer (2007).

One promising solution to address these challenges is the development of printed learning media, specifically in the form of pocket books. These compact and portable materials are crafted to deliver learning content in a concise manner, allowing students the flexibility to study whenever and wherever they choose. Previous research has demonstrated that the use of pocket books can significantly boost students' motivation and comprehension, largely due to their appealing visual design and practicality (Zuliana, 2022). However, despite the evident advantages they offer, there is a notable scarcity of vocabulary pocket books that are

specifically tailored to the needs of vocational English learners, especially within specialized fields such as Building Information Modeling Design.

Consequently, this study aims to fill this gap by developing an English vocabulary pocket book that addresses the vocational needs of students. Furthermore, it seeks to investigate the validity and effectiveness of this pocket book as a supplementary learning tool, thereby contributing to improved vocabulary acquisition and overall communication skills among students in vocational settings.

## **METHODOLOGY**

This study employed a comprehensive Research and Development (R&D) approach utilizing the ADDIE model, which consists of five distinct stages: Analysis, Design, Development, Implementation, and Evaluation. The research was conducted over a two-month period, from February to March 2025, at SMK Negeri 2 Rantau Utara, and involved a sample group of 35 Grade XI students specializing in the Building Information Modeling Design Department. During the initial Analysis stage, a thorough needs assessment and curriculum review were conducted. This involved engaging with students and teachers through structured interviews and detailed classroom observations to identify the existing gaps in learning resources and instructional materials. The insights gained from these interactions informed the subsequent design of the educational tool.

In the Design stage, the research team crafted a detailed blueprint for a pocketbook tailored to the students' educational needs. This blueprint outlined specific learning objectives that aligned with the curriculum, an organized content structure to enhance information flow, and a visually engaging layout aimed at promoting student engagement and comprehension.

Moving into the Development stage, the pocketbook was created using Canva, a graphic design platform. The content was meticulously organized to address the learning objectives identified in the design phase. To ensure the pocketbook's quality and educational relevance, expert validation was sought from both a media expert, who evaluated the design and usability, and a material expert, who assessed the adequacy and clarity of the content. Revisions were made based on the constructive feedback received from these experts, ensuring the final product was both pedagogically sound and visually appealing.

In the Implementation stage, the pocketbook was employed as a supplementary learning tool over a two-week period in the classroom. Teachers integrated it into their lessons, allowing students to utilize the resource actively during their studies.

Finally, during the Evaluation stage, the effectiveness of the pocketbook was rigorously assessed. This assessment involved comparing pre-test and post-test results to measure any changes in student learning outcomes. Additionally, feedback was collected from both students and experts regarding their experiences with the pocketbook. Descriptive statistical analysis was applied to evaluate the data, determining the validity of the findings and measuring the extent of learning improvements among the students. This multifaceted evaluation process ensured a comprehensive understanding of the pocketbook's impact on student learning.

## **RESULTS AND DISCUSSION**

### **Result**

The validation results thoroughly illustrated that the developed pocket book not only met but exceeded high feasibility standards set for educational resources. Media experts reviewed the pocket book and awarded it an impressive score of 92.2%, while material experts evaluated it slightly lower but still favorable, with a score of 91.4%. Both of these evaluations categorized the pocket book as “very valid,” indicating strong confidence from experts in its design and content. In addition to expert reviews, feedback from students was overwhelmingly positive. Their responses reflected a high level of acceptance, with an average score of 92.3%. This suggests that students found the pocket book to be practical and user-friendly, contributing to an engaging learning experience.

A detailed effectiveness analysis was conducted to assess the impact of the pocket book on students' vocabulary mastery. The results were quite promising, showing a notable improvement in students' pre-test and post-test scores. The average pre-test score was 65.8, which significantly increased to 71.3 in the post-test, revealing a meaningful enhancement in vocabulary knowledge after the implementation of the pocket book. This marked improvement in test scores indicates that the pocketbook functions as an effective tool for supporting students' vocabulary learning. It provided contextualized and accessible materials that align well with vocational contexts, thus facilitating independent learning. Rather than simply presenting quantitative data, these findings underscore the role of the pocket book in reinforcing vocabulary acquisition and promoting a deeper understanding of language as it relates to practical applications in students' future careers.

### **Discussion**

The findings from this study provide strong evidence that the vocabulary pocket book created using the ADDIE model is not only a valid resource but also an effective supplementary learning tool for students. The impressive validation scores obtained indicate that the content, design, and presentation of the pocket book are well-aligned with the specific learning needs of vocational students as well as the requirements of the curriculum they are following.

This outcome aligns with previous research, which highlights that instructional media designed using systematic approaches can greatly enhance vocabulary acquisition and engage learners more actively (Nation, 2013; Thornbury, 2002; Safita, 2021).

In accordance with established principles of instructional design theory, the ADDIE model serves as a systematic framework that encompasses five key phases: Analysis, Design, Development, Implementation, and Evaluation. This model is crucial in ensuring that educational materials are expertly crafted to address the specific needs and characteristics of learners. By beginning with a thorough analysis, educators can identify the prerequisites, expectations, and learning styles of their students, which informs the subsequent stages of

design and development. Setting clear and measurable learning objectives is a fundamental aspect of this model, as it provides a roadmap for instructing and assessing learners effectively.

Ongoing assessments are integral to the ADDIE model, allowing instructors to evaluate the effectiveness of their materials and instructional strategies continually. This iterative process fosters an environment of continuous improvement, ultimately enhancing the quality of instruction provided and contributing to better learning outcomes for students, as highlighted by the works of Branch (2009) and Tegeh et al. (2013).

The vocabulary pocket book, designed with these principles in mind, emerges as a multifaceted educational tool. It not only assists students in expanding their vocabulary but also creates a more interactive and stimulating learning atmosphere tailored for vocational students. This focus on engagement is particularly important in vocational education, where practical skills and real-world applications are paramount.

The significant improvement observed in post-test scores indicates that the use of concise, context-specific vocabulary materials can have a remarkable positive impact on students' comprehension and retention of information. This finding aligns with cognitive learning theory, which posits that organized and meaningful information significantly enhances the processes of information assimilation and retention in long-term memory (Mayer, 2009; Sweller, 2011). Further supporting this perspective, research conducted by Zuliana (2022) and Zukmadani et al. (2018) reinforces the notion that pocket books and other forms of compact learning materials can effectively improve students' mastery of vocabulary. These studies underscore the advantages of simplicity and relevance in learning resources, particularly for vocational students who thrive on materials that connect directly to their field of study.

In contrast to traditional textbook-based instruction, the incorporation of contextualized vocabulary materials has proven to be more effective for vocational learners. This is largely due to their learning preferences, which tend to favor practical and application-oriented approaches (Richards, 2015; Tomlinson, 2011). By catering to these preferences, educators can enhance the learning experience and facilitate more meaningful engagement with the subject matter, ultimately fostering a deeper understanding and application of vocabulary in real-world contexts.

The portability of vocabulary pocket books offers students a unique opportunity to engage in self-directed learning outside the traditional classroom environment. This aspect of learning supports the principles of autonomous learning, which emphasize the importance of learners taking responsibility for their own educational journeys and developing independence in the learning process, as discussed by Holec (1981) and Benson (2013). This approach is particularly relevant within vocational education contexts, where the learning experiences are directly tied to real-world applications and practices. In such settings, the availability of flexible and mobile learning resources proves to be particularly beneficial, as highlighted by Harmer (2007) and Rusmayana (2021).

While many studies have historically focused on the advantages of digital media in education, this research takes a different perspective by emphasizing the enduring effectiveness

of printed materials, especially when they are thoughtfully designed to cater to the specific needs and contexts of learners, as noted by Arsyad (2017). Educators can leverage vocabulary pocket books not only as teaching tools but also as flexible learning resources that facilitate personalized educational experiences for students.

From a constructivist viewpoint, materials that foster active interaction with content are pivotal for enhancing students' understanding and motivation. This perspective draws on the theories of Vygotsky (1978) and Brown (2007), who advocate for the importance of engagement in the learning process. The findings of this study suggest that incorporating simple yet media-rich tools into English language instruction can significantly improve learning outcomes and boost student motivation, particularly in vocational education settings. This insight aligns with previous research, which indicates that instructional media that are tailored to the characteristics and needs of learners can have a positive impact on their motivation, engagement, and overall academic achievement, as supported by Djamarah (2012) and Richards & Rodgers (2014). By recognizing and acting on these principles, educators can enhance the effectiveness of their instructional strategies and better support their students' learning journeys.

## **CONCLUSION**

This study has made significant advancements by successfully developing a comprehensive English vocabulary pocket book tailored specifically for students enrolled in the Building Information Modeling Design Department. The development process followed the structured ADDIE model, which encompasses the stages of Analysis, Design, Development, Implementation, and Evaluation, ensuring a systematic approach to creating an effective educational resource.

Validation results from experts indicate that the pocket book is not only highly feasible but also aligns well with the educational needs of the target audience. Furthermore, the effectiveness of this pocket book in enhancing students' vocabulary mastery was measured through a series of pre-tests and post-tests. The findings reveal a marked improvement in students' vocabulary knowledge, illustrating the positive impact of the resource on their learning outcomes.

This research contributes meaningfully to the field of vocational English education by introducing a practical and user-friendly learning medium that encourages and facilitates vocabulary acquisition among students. The pocket book serves as an essential tool that caters to the specific linguistic demands faced by students in the context of their specialized vocational training.

Looking forward, future research endeavors could explore the potential for developing digital versions of this pocket book, which may offer interactive features and greater accessibility. Additionally, there is room to investigate the application of similar vocabulary resources in other vocational fields, with the aim of further enhancing learning effectiveness and fostering language proficiency across diverse educational contexts.

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