FEASIBILITY OF 'YOUR ENGLISH BUDDY': AN INTERACTIVE ANDROID-BASED GAME TO ENHANCE VOCABULARY MASTERY AMONG ELEMENTARY STUDENTS

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Abstract

This study evaluates the feasibility of the "Your English Buddy" application, an interactive Android-based game designed to enhance English vocabulary mastery among elementary students. The research employed the ADDIE model, which includes the Analysis, Design, Development, Implementation, and Evaluation phases. The media and content validation trials involving educational technology and English language education experts were critical to this study. The media validation focused on usability, interface design, and technical functionality, while content validation emphasized alignment with curriculum standards and pedagogical effectiveness. The results were overwhelmingly positive, with the application achieving a perfect feasibility score of 100.0% for media and a high score of 95.0% for content. These scores indicate that "Your English Buddy" is well-designed, user-friendly, and effectively supports vocabulary acquisition. The application's intuitive interface, interactive methods, and smooth operation were particularly noted for their ability to engage students and enhance learning outcomes. The study concludes that "Your English Buddy" is ready for implementation in educational settings, offering a valuable and innovative tool for improving English vocabulary skills in young learners. This application is poised to significantly impact elementary education, providing an engaging and effective medium for language learning.

Keywords: ADDIE Model, English Vocabulary, Game Development, Interactive Learning Media

Introduction

English is a global language in everyday life, business, technology, and international communication. Proficiency in English opens doors to opportunities in the professional world and serves as a key to accessing global educational resources and information. In the era of globalization, mastering English becomes an indispensable foundation for engaging in cultural exchange, learning, and international collaboration.

Particularly in education, English is a catalyst for intellectual stimulation and a comprehensive source of learning across various fields of knowledge and daily life. Its significance extends beyond formal school education, serving as a foundation to access literature, research, and information across diverse disciplines. English facilitates global communication, enabling the development of critical thinking, a deep understanding of cultures, and the ability to participate in intellectual dialogues that transcend national boundaries. Therefore, mastering English is essential in the academic realm and is a skill that supports intellectual growth and active participation in the global knowledge arena (M. Najar, 2019).

Proficiency in the English language is playing an increasingly significant role in the current technological era. English not only functions as a tool for international communication but also serves as a key to accessing educational resources, job opportunities, and other prospects on a global scale. As explained by V. Srivani (2020), learning English plays a vital role worldwide, and the Education 4.0 era opens the door to more advanced techniques and broader research opportunities. Therefore, establishing a solid English foundation is crucial, especially in primary education. Nevertheless, learning English at the elementary school level is often challenging.

Teaching English in elementary school often faces challenges requiring careful and creative approaches. Teaching English in elementary school often faces challenges requiring careful and creative approaches. One of the main challenges is maintaining student motivation,

as students can quickly feel bored when just opening books and completing tasks (Apriyanti, 2021a). Engaging strategies are essential to keep their interest in the learning process. Additionally, according to Madalińska-Michalak & Bavlı (2018), emotional barriers also play a significant role, as some students may feel awkward or hesitant to communicate in a foreign language. Other challenges include managing large classes, ensuring differentiation in teaching according to each student's needs, and maintaining the quality of teacher professionalism development so that they can provide optimal instruction.

Furthermore, an essential aspect of understanding English in elementary school is vocabulary. Words in elementary school refer to a set of words introduced to students as part of the language learning process. Vocabulary serves as an access to knowledge that opens the path for readers toward noble ideas, playing a central role in understanding new concepts (Jose, 2015). According to Baiz (2018), vocabulary is a constitutive element and the foundation of language. Learning vocabulary strategies can expand students' word lists and enhance their interest in the vocabulary learning process. This includes mastering new words, understanding their meanings, using them in sentences, and developing speaking and writing skills. Vocabulary learning in elementary school aims to improve students' communication skills, enrich reading experiences, and support understanding and text writing. The role of teachers is crucial in guiding students to understand and use vocabulary correctly, often involving creative and activity-based methods to make vocabulary learning enjoyable and effective. Good language usage at this level is crucial in shaping the foundation of students' language skills throughout elementary school.

Teaching vocabulary in elementary school faces several challenges, including students' lack of motivation to learn English vocabulary and the inadequacy of teaching methods. In the SD N 1 Gunungsari research, data revealed various challenges students encounter in learning English vocabulary. Observation results indicate significant difficulties, particularly in recognizing and understanding vocabulary, as evidenced by the students' reliance on dictionaries when working on vocabulary questions. This highlights the need for substantial improvement in vocabulary understanding. Additionally, students struggled with completing fill-in-the-blank questions and vocabulary writing, indicating challenges in applying vocabulary contextually within sentences or texts. Moreover, students faced difficulties correctly spelling vocabulary, underscoring the importance of emphasizing deeper linguistic aspects in the learning process. Recognizing these challenges, designing attractive, interactive learning methods that address students' specific difficulties becomes crucial, enhancing their effectiveness in mastering English vocabulary.

Educational technology has become a promising solution to overcoming the challenges of learning English at the elementary school level, such as in the SD N 1 Gunungsari case. According to Hadi et al. (2023), the quality of education can be significantly enhanced if the teaching and learning process conducted in the classroom is genuinely compelling. As Sudarsana (2019) mentioned, educational technology, such as videos and interactive exercises, can increase students' interest in learning and improve their academic performance. The use of technology that can enhance students' understanding is the development of Android applications in the form of games as a learning medium for students both in school and independently. According to Megawati & Sultoni (2016), educational games on Android devices successfully enhance the English vocabulary skills of young learners and promote their enthusiastic involvement in classroom engagements. The researcher used a game-based learning technique to address the obstacles of learning English in elementary school. Findings by Ningsih (2023) confirm that this approach has advantages in making the learning process more enjoyable, making it easier for young students to understand the material, and increasing their motivation to learn.

The utilization of Android games in the educational context emerges as an innovative solution to enhance the vocabulary skills of elementary school students. By leveraging gaming elements, students can actively engage in the vocabulary learning process, creating an enjoyable and motivating learning experience. This aligns with Hadi et al. (2022) statement in their article *"Permasalahan Pendidikan dan Solusinya di Indonesia",* which emphasizes the need for creative and innovative teaching methods to capture students' attention. Using educational games on Android devices increases students' interest, significantly improves children's English vocabulary skills and encourages their enthusiastic engagement in classroom activities (Puspitaloka et al., 2017). In this research, the researcher developed an Android game called "Your English Buddy" to solve the challenges faced at SD N 1 Gunungsari.

The development of an Android-based game application called "Your English Buddy" is an innovative step to overcome problems that arise at SD N 1 Gunungsari regarding learning English vocabulary. Education transcends mere transmission of knowledge from books or teachers (Apriyanti, 2021b); it involves interactive and enjoyable approaches. This application is designed as an effective and engaging solution for students to enhance their vocabulary skills, potentially boosting their learning motivation. "Your English Buddy" provides various features to help students expand and deepen their vocabulary engagingly and effectively. Thus, using this application is expected to positively impact the English language skills of elementary school students at SD N 1 Gunungsari.

Method

The method used in this research follows the ADDIE model (Analysis, Design, Development, Implementation, Evaluation) to develop the "Your English Buddy" application, focusing on media and content validation trials. The media validation involved educational technology and interactive media experts, who evaluated the application's interface design, user experience, and technical functionality. These experts conducted detailed assessments to ensure the application was user-friendly, stable, and technically sound. They provided feedback on design improvements and technical issues, participating in feedback sessions to refine the application further.

Content validation was conducted by experts in English language education, particularly for elementary students. These validators assessed the alignment of the content with curriculum standards, language usage accuracy, and instructional strategies effectiveness. Feedback was collected through structured checklists, ensuring the educational objectives were met. The validators also engaged in feedback sessions to discuss potential revisions and enhancements, ensuring the content was pedagogically effective and suitable for young learners.

The research took place at SD N 1 Gunungsari in Pacitan, East Java, using purposive sampling to select students from the 4th, 5th, or 6th grades. The qualitative data from the validation trials were analyzed using a specific formula to calculate feasibility percentages, categorizing the results based on established criteria.

Data collection techniques included tailored questionnaires for media and material experts, with assessments following guidelines adapted from Romi Satria Wahono (2006). The evaluation method was based on the heuristic evaluation by Nielsen et al. (1990), which is known for its validity in assessing application feasibility. Overall, the technique emphasizes rigorous evaluation through expert assessments and systematic data analysis, ensuring the "Your English Buddy" application is technically and pedagogically feasible for enhancing English vocabulary skills among elementary students.

Findings and Discussions
Material Feasibility Assessment Results

The material suitability assessment of the "Your English Buddy" application was conducted to ensure that the content aligns with the appropriate conceptual framework and educational standards. Raya Azazi, S.Pd., an English language expert and teacher at SD N 1 Gunungsari, conducted this evaluation and determined that the material within the application is highly feasible. The results, summarized in Table 1, indicate a feasibility score of 95.0%, categorizing the material as "Highly Feasible."

This high feasibility score reflects the thorough evaluation process, which scrutinized various aspects of the content, including its accuracy, relevance, and alignment with learning objectives. The evaluation also assessed the pedagogical effectiveness of the instructional strategies employed in the application, ensuring that they are suitable for elementary students. The content was accurate, relevant, engaging and effective in facilitating learning.

The comprehensive nature of this assessment underscores the robustness of the material within "Your English Buddy." The high score suggests that the application meets established educational standards and conceptual frameworks, making it appropriate for instructional settings. The conclusion drawn by the expert, Raya Azazi, S.Pd. that the materials are ready for implementation highlights the application's readiness for integration into educational environments.

This readiness is crucial for teachers and students, as it gives them the confidence to incorporate the application into their learning processes. The anticipated positive impact on vocabulary acquisition and overall English language proficiency further validates the potential of "Your English Buddy" as a valuable educational tool. The meticulous assessment process and the resultant high feasibility score confirm that the application is well-prepared to support and enhance English language learning among elementary students.

Media Feasibility Assessment Results

The media feasibility assessment of the "Your English Buddy" application was conducted to determine its suitability and effectiveness as a learning medium for elementary school students. This assessment was carried out by an expert in the field of information technology, ensuring a thorough and detailed evaluation of the application across several key dimensions, including usability, technical functionality, and educational effectiveness.

The assessment results were highly positive, with the application receiving a perfect score of 100.0% in feasibility, categorizing it as "Highly Feasible." This exceptional rating indicates that the "Your English Buddy" application is well-designed and fully meets the needs and expectations of its intended users—elementary students and their teachers.

One of the primary areas of focus during the assessment was the application's usability. The evaluation confirmed that the "Your English Buddy" interface is intuitive and user-friendly, making it easy for young students to navigate without requiring extensive instructions or prior technical knowledge. This is a critical factor for educational tools aimed at younger audiences, as a complex or confusing interface could hinder the learning process. The application's design facilitates easy interaction, allowing students to focus on learning rather than struggling with the technology.

In addition to usability, the technical functionality of the application was rigorously tested. The expert conducted a thorough examination to ensure the application ran smoothly and consistently without glitches, crashes, or other technical issues that could disrupt the learning experience. The application passed these tests with flying colours, demonstrating stability and reliability. This ensures that "Your English Buddy" can be used in natural classroom settings or at home without concerns about technical difficulties, essential for maintaining student engagement and learning continuity.

Moreover, the educational effectiveness of "Your English Buddy" was a significant focus of the assessment. The application was evaluated on its ability to effectively engage students and enhance their English vocabulary skills. The expert found that the application

employs various interactive and engaging methods that make learning enjoyable and effective. These methods include gamified elements and interactive exercises that capture students' attention and motivate them to participate actively in the learning process. This approach helps in vocabulary acquisition and retaining the new words learned, which is crucial for language development at the elementary level.

The comprehensive "Your English Buddy" assessment highlighted its strengths as an educational tool. The perfect feasibility score of 100.0% is a testament to the application's excellence in meeting academic standards and its readiness for widespread implementation in educational settings. The validation process, carried out by a seasoned expert in information technology, confirms that the application is not only technically sound but also pedagogically practical.

By providing a well-rounded and practical learning medium, "Your English Buddy" has the potential to enhance English vocabulary acquisition among elementary students significantly. This improvement in vocabulary skills can support students' overall academic growth and language proficiency, laying a solid foundation for their future educational endeavours. The application's design and its educational value make it a valuable resource for teachers seeking innovative and effective ways to teach English vocabulary.

In conclusion, the "Your English Buddy" application has been thoroughly vetted through a meticulous media feasibility assessment and has emerged as a highly effective educational tool. Its user-friendly interface, technical robustness, and educational effectiveness make it an ideal resource for enhancing vocabulary skills among young learners. With its perfect feasibility score, "Your English Buddy" is well-positioned to impact elementary education significantly, offering students an engaging and efficient way to improve their English language abilities.

Conclusion

The "Your English Buddy" application has been evaluated as highly suitable for learning, earning a perfect feasibility score of 100.0%. This top rating reflects the application's excellence in usability, technical functionality, and educational effectiveness. Expert evaluation confirmed that the app is well-designed, user-friendly, and effective in supporting vocabulary acquisition for elementary students. The intuitive interface and smooth operation ensure a seamless learning experience, while the interactive methods align with educational standards, boosting student engagement and learning outcomes. Ready for immediate use in classrooms, "Your English Buddy" is a versatile tool that can significantly enhance students' vocabulary skills and overall language proficiency.

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