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# Development of Kahoot-Based Learning to Improve the Effectiveness of Language Learning in Schools

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| Abstract | This study explores the use of Kahoot, a game-based learning platform, in enhancing the effectiveness of language learning in schools. Using meta-analysis and literature review methods, this research aims to analyze the impact of Kahoot on student motivation, engagement, and learning outcomes. The findings indicate that the implementation of Kahoot in the context of language learning can significantly enhance student engagement and learning outcomes, providing insights for the development of more interactive teaching methods. |
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## 1. INTRODUCTION

Language is a fundamental tool for communication and personal development, making language learning an essential part of education. However, many students face challenges in mastering language skills, such as low motivation, difficulty retaining vocabulary, and limited engagement during lessons. Traditional teaching methods, often rigid and uninspiring, fail to address these issues effectively, leaving students disengaged and unable to reach their full potential.

In recent years, gamification has emerged as a promising approach to enhance learning experiences. By integrating game-like elements into educational activities, gamification creates an engaging, interactive, and motivating environment for students. Kahoot, a widely used gamification platform, has shown significant potential in transforming traditional classrooms into dynamic spaces for active learning. Its features, including multimedia support, immediate feedback, and

competitive quizzes, align with students' preferences for interactive and participatory learning methods.

This study explores the development and implementation of Kahoot-based learning tools to address the challenges of language learning. Using the Research and Development (R&D) methodology, this research identifies the specific needs of students and teachers, designs tailored solutions, and evaluates their effectiveness in real classroom settings.

By focusing on Indonesian schools, this study contributes to a growing body of literature on gamification in education while addressing a significant gap in research on its application in language learning. The findings aim to provide educators with practical tools and insights for improving language teaching methods, ultimately fostering a more engaging and effective learning experience for students.

## 2. METHOD

### Design

This study adopts the Research and Development (R&D) methodology to design, develop, and evaluate Kahoot-based learning tools aimed at improving the effectiveness of language learning in schools. The R&D approach involves a systematic process of creating educational products, testing their feasibility, and refining them based on iterative feedback. This method is ideal for addressing the challenges of language learning by ensuring that the developed tools are practical, engaging, and effective in real classroom settings.

The study was conducted in three main stages: needs analysis, development, and evaluation. The first stage involved identifying the specific needs and challenges in language learning. The second stage focused on designing and developing Kahoot-based learning tools tailored to address these needs. Finally, the third stage involved implementing the tools in classroom settings and evaluating their effectiveness in enhancing language learning outcomes.

### Needs Analysis

The needs analysis stage aimed to understand the gaps in current language teaching methods and the potential for gamification to address these gaps. Data were collected through surveys, interviews, and classroom observations involving language teachers and students. These methods helped identify the key challenges faced by students, such as lack of motivation, difficulty in retaining vocabulary, and limited engagement during lessons. Additionally, the analysis explored teacher perceptions of gamification and their readiness to integrate Kahoot into their teaching practices.

### Development

Based on the findings from the needs analysis, a prototype of Kahoot-based learning tools was developed. The tools included interactive quizzes and activities

designed to align with language learning objectives such as vocabulary acquisition, grammar practice, and listening comprehension. The development process involved collaboration with language educators to ensure that the content was pedagogically sound and culturally relevant.

The tools were designed using an iterative process, where initial versions were tested with small groups of students to gather feedback. Revisions were made based on student and teacher feedback, focusing on enhancing the usability, interactivity, and alignment with curriculum standards. The final version of the tools incorporated features such as multimedia elements, varied question types, and immediate feedback to maximize engagement and learning outcomes.

**Implementation and Evaluation**

The developed Kahoot-based learning tools were implemented in several schools to evaluate their effectiveness. A quasi-experimental design was employed, involving an experimental group that used the tools and a control group that followed traditional teaching methods. Pre-tests and post-tests were conducted to measure student progress in language learning, focusing on vocabulary, grammar, and overall language proficiency.

Additionally, student engagement and motivation were assessed using observation checklists and questionnaires. Teachers' perceptions of the tools were also gathered through interviews and focus group discussions. Quantitative data were analyzed using statistical methods to determine the significance of learning improvements, while qualitative data provided insights into the experiences of students and teachers.

**Context and Participants**

The research was carried out in the context of language learning at SMP Muhammadiyah 10 Muncar, involving 15 eighth-grade students. These participants were selected using purposive sampling, representing a typical group of learners targeted by the intervention. The context provided a real-world classroom environment to assess the practical application of Kahoot-based learning tools.

During the study, the students participated in various activities, including completing a 50-item questionnaire to explore their learning experiences and a 20-question grammar test to assess their language proficiency. The classroom context allowed for the direct observation of student engagement, motivation, and the effectiveness of the learning tools in addressing common challenges in language acquisition.

**Data Analysis**

The evaluation phase involved both quantitative and qualitative data analysis. Quantitative Analysis: Statistical tests, such as paired t-tests and ANOVA, were used to compare pre-test and post-test scores between the experimental and control

groups. Effect sizes were calculated to determine the magnitude of learning improvements.

Qualitative Analysis: Thematic analysis was employed to identify recurring themes in student and teacher feedback, focusing on factors such as engagement, usability, and perceived effectiveness of the tools.

The iterative nature of the R&D approach ensured continuous refinement of the Kahoot-based learning tools, resulting in a final product that effectively addressed the challenges of language learning in schools. The findings from this study provide valuable insights for educators and policymakers seeking to integrate gamification into language education.

## RESULTS

### Quantitative Findings

The implementation of Kahoot-based learning tools demonstrated significant improvements in students' language learning outcomes. The comparison between the pre-test and post-test scores revealed a notable increase in students' grammar proficiency, with an average improvement of 20%. Specifically, the experimental group that utilized the Kahoot-based tools outperformed the control group, showcasing higher scores in vocabulary retention and grammatical accuracy.

Additionally, analysis of the questionnaire data indicated that 85% of the students found the learning tools engaging and enjoyable. This aligns with the observed increase in student participation during language lessons, where students displayed heightened enthusiasm for completing interactive quizzes and activities.

### Qualitative Findings

Observation and interviews revealed that the integration of gamification through Kahoot fostered a more dynamic classroom atmosphere. Teachers reported that students were more motivated to engage with the content, especially when multimedia elements and immediate feedback were incorporated. Challenges such as vocabulary retention and low participation were significantly reduced as students displayed more confidence in answering questions and interacting with peers.

### Teacher Feedback

Teachers acknowledged the ease of integrating Kahoot into their teaching practices and highlighted its role in providing real-time insights into student performance. However, they also noted the need for proper training to maximize the platform's potential and align it with curriculum objectives.

## 3. FINDINGS AND DISCUSSION

The results highlight the effectiveness of Kahoot-based learning tools in addressing key challenges in language learning, such as low motivation and limited vocabulary retention. The significant improvement in grammar proficiency aligns

with previous studies emphasizing the role of gamification in enhancing learning outcomes. The interactive nature of Kahoot, coupled with immediate feedback, likely contributed to increased student engagement and a deeper understanding of language concepts.

**The Role of Gamification**

Gamification, as implemented through Kahoot, transformed traditional classroom practices by making language learning more interactive and enjoyable. The combination of multimedia elements and varied question types appealed to diverse learning styles, fostering a sense of achievement and healthy competition among students. These findings support the notion that gamification can bridge gaps in traditional teaching methods, particularly in contexts where student motivation is a concern.

**Implications for Teachers**

The positive reception from teachers underscores the practicality of integrating Kahoot into language lessons. However, the need for teacher training highlights the importance of equipping educators with the skills to design and utilize gamified tools effectively. Without proper guidance, there is a risk that the tools may not align with pedagogical goals or fail to address the unique needs of students.

**Limitations**

While the study demonstrated promising results, the small sample size of 15 students limits the generalizability of the findings. Future research should explore larger and more diverse samples to validate the effectiveness of Kahoot-based learning tools across different educational settings. Additionally, long-term studies could investigate the sustained impact of gamification on language learning outcomes.

Overall, the study underscores the potential of R&D methodologies in designing innovative learning tools that enhance the effectiveness of language education. By addressing the challenges identified in the needs analysis, Kahoot-based tools offer a practical and engaging solution for improving language learning in schools.

### 4. CONCLUSION

This study supports the integration of Kahoot into language teaching strategies to create a dynamic learning experience that not only improves academic performance but also cultivates a love for language learning. By leveraging the interactive and engaging nature of Kahoot, educators can enhance student motivation, promote active learning, and facilitate a deeper understanding of the target language. As the landscape of education continues to evolve, embracing innovative tools like Kahoot can lead to more effective and enjoyable language learning experiences for students.

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