



Development of Bamboozle Media for English Language Learning in Elementary School

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Abstract

This research aims to develop an interactive learning media using Baamboozle games for English subjects in the 3rd grade of SDN Pabuaran 2 Kota Tangerang. The research method applied is Research and Development (R&D) using Sugiyono's development model, which includes potential and problem analysis, data collection, product design, design validation, design revision, product testing, and product revision. The results show that Baamboozle media can enhance students' learning interest, activeness, and vocabulary comprehension in English. Expert validation in media and content stated that the product is feasible for use with minor revisions. This media is expected to be an innovative alternative for English learning in elementary schools.

Keywords: *Baamboozle*, learning media, English, R&D.

INTRODUCTION

English is one of the most important subjects in the Indonesian elementary school curriculum, as it lays the foundation for future global communication skills. However, in practice, English language learning in elementary schools often faces various obstacles, such as low student motivation, conventional teaching methods, and limited media used by teachers to deliver material. These conditions can result in a lack of active student participation in class and poor vocabulary and language skills.

SDN Pabuaran 2 Kota Tangerang, as a public elementary school, also faces similar challenges. Students often find English lessons difficult and boring when they are only delivered





through lectures or memorization. In fact, at the elementary school age, children tend to absorb learning material more easily through fun, interactive, and game-based experiences. Therefore, innovative strategies are needed to foster interest in learning while improving students' English skills.

At SDN Pabuaran 2 Elementary School in Tangerang City, several obstacles have emerged, including low student interest in learning, limited teaching methods, and the perception that English is a difficult subject. This situation has caused some students to become passive, lack confidence in speaking, and focus only on memorizing vocabulary without understanding the context of its use. If this pattern of learning continues, there is concern that students' English skills will not develop optimally.

To address these challenges, innovative strategies are needed to create a fun, interactive learning environment that encourages active student participation. One relevant approach is the use of educational games. Games have been proven effective in increasing learning motivation because they create an engaging learning experience, involve emotional aspects, and hone critical and creative thinking skills. In addition to the conceptual framework, empirical studies further reinforce the effectiveness of Game Based Learning. A meta-analysis conducted by Lin and Aloe (2024) shows that GBL has a moderate to strong impact on the cognitive, social, emotional, and motivational development of early childhood. These results confirm that educational games can be a strategic instrument in early education. Similar findings were also reported by Susaniari and Santosa (2024), who examined the application of GBL in foreign language learning. Their review results showed an increase in motivation, vocabulary mastery, and a reduction in learning anxiety among students.

Not only limited to students, GBL has also begun to be applied in teacher professional development. Kager et al. (2024) introduced Lesson Study – The Game, a board game designed to help teachers understand and practice the Lesson Study model in a more collaborative manner. Teachers' responses to this format were very positive, indicating that the principles of GBL can reach a broader educational realm, including training and competency development for educators. On the other hand, technological developments have also expanded the forms of GBL implementation. Mobile Augmented Reality Serious Games (MARSGs) have become one of the latest trends, combining the principles of social constructivism, behaviorism, and cognitive theory in mobile device-based pedagogical design. This technology allows students to experience more immersive and contextual learning, bridging the real world and the digital world.

One strategy that can be applied is the use of the Baambodzle game. This game is a form





of puzzle and board game designed to train vocabulary, speaking skills, and the ability to work together in groups. Through games, students can learn in a fun way, creating a more lively, communicative, and interactive classroom atmosphere. In addition, the game-based learning approach is also in line with constructivism theory, where students build their own knowledge through direct experience. Baambodzle is a digital game medium that requires internet access for its use. Baambodzle is also played in groups, and each group will choose one number on the screen containing questions to be answered. Baambodzle is a game-based learning medium. Baambodzle is a game-based learning medium that can be used as a visual aid in the learning process, enhancing students' learning experience and making lessons more engaging, interactive, and relevant to students' needs. Bila May, et al. (2024).

By implementing innovative English learning strategies through the Baambodzle game, it is hoped that students at SDN Pabuaran 2 Kota Tangerang will be more motivated to participate in lessons, improve their English language skills actively, and develop confidence in communicating. This strategy also supports the school's efforts to create a creative, adaptive, and relevant learning process for students in today's global era.

METHOD

The research on the development of Bamboodzle media games in English lessons in grade 3 students of SD Negeri Pabuaran 2 Tangerang City uses research and development. This research provides the development of a Bamboodzle media games product in the form of games or quizzes that will be addressed to a sample of 3rd grade students of SD Negeri Pabuaran 2 Tangerang City. This development model can be seen in the procedural steps of using the Research and Development model, namely Potentials and Problems, Data Collection, Product Design, Design Validation, Design Revision, Product Trial and Product Revision.

This product trial is intended to collect data that is used as a basis for determining the quality of bamboodzle media games products. The data obtained from the trial is used to improve and improve existing media. Data collection was carried out by interviews, questionnaires or questionnaires, observation and documentation

The measuring tools that can be used in this study are in the form of validation instrument sheets and questionnaires of the measurement scale used is the Likert scale. The validation instrument sheet is given to experts/cases, namely lecturers, then tested to small groups in grade 3 and questionnaires will be given to find out students' responses to the learning media that has been developed. Here is the grid for the media seen in the table:



Table 1. Media Expert Instrument Grid

No.	Indicator	Number of Items	Item Number
1	Correct use of Language and Sentences	5	1,2,3,4,5
2	Pay attention to students' abilities	2	6,7
3	Have an identity and benefits	1	8
4	Accurate use of writing, images, and illustrations	6	9,10,11,12,13,14
5	Media Size Games	2	14,15

Table 2. Material Expert Instrument Grid

No	Indicator	Number of Items	Item Number
1	Suitability of the material description with teaching needs	5	1,2,3,4,5
2	The meaning of the material in learning	2	6,7
3	The quality of Games-based learning media on students' abilities and understanding	1	8
4	Uniqueness in presentation	1	11
5	Display suitability of presentation	3	9,10,11
6	Suitability of image selection	1	12
7	The Truth of the Teaching Material	2	13,14
8	Ease of use of Games-based media	1	15

The data analysis techniques used in the expert validation test in this study are quantitative descriptive statistics and qualitative data analysis. Quantitative data analysis and qualitative data analysis according to Bogdan & Biklen are efforts made by working with data, organizing data, sorting it into manageable units, synthesizing it, looking for and finding patterns, finding what is important and what is learned, and deciding what can be told to others. Meanwhile, descriptive statistics are statistics that are used to analyze data by describing or describing the data that has been collected as it is without making conclusions that apply to generalities or generalizations.

FINDINGS AND DISCUSSION

Result

The data analysis aims to explain the results of the trial. The conclusion of the test results

needs to be shown in the final part of this item, the following explanation is used as a dashboard in revising the product.

a. Data Validated Results of Learning Media Experts

The results of the percentage calculation from media experts, based on indicators which are media that are assessed to be in accordance with the Bamboodzle Games media indicators and guidelines. With 15 questions that were assessed for their suitability with the indicators and media guidelines of the Bamboodzle Games by obtaining a result of 82.6% with a classification of Excellent and suitable for use. So it can be stated that the Bamboodzle games media is valid enough to be used as a medium in daily learning.

The trial instrument consists of indicators, namely the quality of the material delivered to students, based on the table obtained in indicator number 10 obtaining valid qualifications and feasible to use with a percentage of 100%. The feasibility is as a form of product that is really declared valid by material experts and can be forwarded to users for a limited trial of 21 students.

The results of the percentage calculation from linguists, based on indicators that are media that are assessed to be in accordance with the indicators and guidelines of the Bamboodzle Games media.

b. Data on the Results of the Student Questionnaire Trial

Based on the results of the trial carried out individually, namely 5 students taken from students with different abilities. Respondent A has a score of 100 including the "Very Good" category, then respondent B has a score of 85 including the "Quite Good" category, while Respondent C has a score of 75 including the "Pretty Good" category. So it can be concluded that in the individual trial conducted at the beginning of the trial, it has an average score of 86.7 by having a category

Based on the results of the trial carried out in small groups, namely 15 students taken from students with different abilities, by being divided into 2 groups. Where in the 3 groups consisted of 5 students with high, medium and low abilities. Group A has a score of 90 "Very Good", group B has a score of 85 "Good" and group C has a score of 80 so it can be compared in the trial this small group has an average of 85 with the category "Good"

Based on the trial conducted in a large group of 27 students, as a respondent with a score of 1838, while the expected score was 2000, the percentage of eligibility was calculated with the feasibility formula in the table. So the eligibility result for the

Bamboodze Games according to the respondents is 91.9% which in the table is included in the category "Excellent"

Based on the results of interviews with teachers, it can be concluded that teachers have an important role in shaping students' character and learning motivation. Teachers are aware of the importance of a fun, interactive, and contextual learning approach so that students can more easily understand the material and be active in the learning process. In addition, teachers also emphasized the importance of collaboration between schools and parents in supporting students' academic development and character. Challenges faced in the learning process, such as differences in students' abilities and limited resources, are overcome with creativity and strategies tailored to students' conditions. This shows that the role of teachers is central in creating an effective and inclusive learning environment.

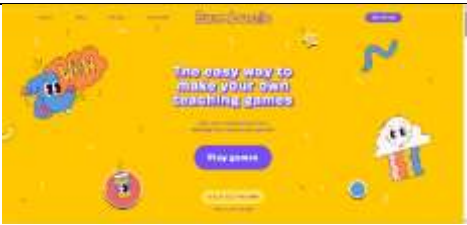
Product Revision

The revision of this product is carried out based on the evaluation of experts after filling out the validation sheet. These comments and suggestions that have been evaluated are used to improve and improve product development so that it can be implemented to students in the future.

a. Revision from Media Experts

The final product developed is a learning media based on Games Baamboodze in English subjects grade 3 elementary school. The resulting product is based on the results of expert validation. The following are the product results before and after the product revision.

Table 3. Product results before and after the product revision.

No.	Before Revision	After Revision
1.	 Figure 1. Home At first glance, there is a login, games icon. Blog, pricing, my library, and play games	 Figure 2. Home There is only a login icon

2.	 Figure 3. Games Display of various games that have been provided	 Figure 4. Games Games that can be made with the desired subject
3.	 Figure 5. Material The section displays images and text with a background	 Figure 6. Material Sections display images and text with backgrounds
4.	 Figure 7. Play The icon when playing on the image does not have a column to write the answer	 Figure 8. Play When playing on the picture, there is a column to write the answer

b. Revision from the Subject Matter Expert

Table 4. Average Product Yield

No.	Validator	Media Games Baambodzle	
		Score	Category
	Media Member	82,6	Excellent
	Material Expert	81,3	Excellent
	Linguist	88,0	Excellent



	Elementary School Student Respondents	91,9	Excellent
Sum		343,8	
Average		85,95	
Category			Excellent

Based on the *Bamboodzle Games media* which has been validated by three linguist, media and material experts and 1 respondent of 3rd grade elementary school students, the results obtained in the *Bamboodzle Games media* are included in the "Excellent" category.

DISCUSSION

Based on the results of the media trial that has been carried out on Bamboodzle learning media in the 3rd grade English subject of SDN Pabuaran 2 Tangerang City, it can be concluded that this media is quite valid and suitable for use. Validation by media experts got a percentage of 82.6%, linguists 88%, and material experts 81.3%. This media not only increases students' motivation to learn, but also provides a fun and interactive learning experience.

Bamboodzle media is considered to be able to increase students' interest in learning English. Based on the observations and validation of experts, this media provides many benefits:

- Increase student involvement actively in the learning process.
- Improve students' English vocabulary mastery.
- Providing a technology-based learning experience that is in accordance with the Independent Curriculum.
- It can be used by teachers easily without special training.
- This media is interactive, can be played in groups, and is easily accessed through a laptop or gadget.

To strengthen the research results of Bamboodzle's interactive learning media development, here are eleven relevant studies that support the effectiveness of digital game-based media in increasing the engagement and vocabulary mastery of elementary school students, especially in English subjects.

In his research titled "The Use of Bamboodzle in Integrated Project Teaching Modules for Grade IV Elementary School", Munawaroh and his team proved that the use of interactive games such as Baamboodzle in project-based learning can increase student participation and curiosity. Students become more active in answering questions, show a collaborative spirit, and have a higher level of vocabulary retention. Munawaroh, L. et al. (2024).

This research focuses on the use of Bamboodzle in the subject of IPAS (Natural and Social





Sciences). The results show that this media is effective in improving understanding of science concepts through strengthening scientific vocabulary. Learning becomes more enjoyable and students can more quickly recognize terms in topics such as organs, animals, and the environment. Nopianti, G. et al. (2024).

Research conducted in one of the elementary schools in Bandung shows that the use of the Bamboodze game helps students understand folklore in English. With a quizze-and-visual approach, students find it easier to understand the flow and vocabulary of new narrative texts that were previously considered difficult. Kusyani, D. & Ray, S. A. (2023) This study discusses the gamification of learning using Bamboodze in elementary grades. The results showed an increase in interaction between students, confidence in answering questions, and an increase in daily exam scores. Researchers emphasize that elements of games such as competition and the scoring system motivate students to study more actively Marwah, S. S. & Ain, Z. N. (2022).

The researcher combines the Teaching at the Right Level (TaRL) approach with the use of digital games such as Bamboodze. This combination has proven to be effective in improving students' basic skills in reading and understanding English commands gradually, according to their ability level. Pratiwi, D. C. et al. (2023).

This research highlights the importance of digital learning media to support students' understanding of academic materials. Bamboodze is considered to provide a balanced visual and linguistic stimulus. When students learn through interactive quizzes, they experience increased understanding and absorption of the subject matter due to a more engaging learning experience. Fadilah, A. et al. (2023).

In this study, the main focus is to improve the mastery of English vocabulary of elementary school students with media games. Students who used Bamboodze showed an increase in the number of active vocabulary and understanding of word context compared to students who learned by conventional methods. Sucandra, R. et al. (2022).

This study shows that the effectiveness of the media is not only determined by the technology alone, but also by its compatibility with the characteristics of the students. Bamboodze is considered to be a perfect fit for elementary school students due to its attractive appearance, dominant use of images, and high interactivity. Hardi Vitri, A. & Rizal, M. S. (2020).

This research emphasizes that technology-based learning makes students more confident and independent. Digital media like Bamboodze encourages students to actively explore questions and answer them in a fun, stress-free way. Lubis, N. S. & Nasution, M. I. P. (2023).

In the context of the implementation of the Independent Curriculum, Bamboodze media





is considered very relevant because it supports differentiated learning. Students can learn according to their individual style and pace through games that do not emphasize academic pressure, but rather intrinsic motivation. Larasati, D. A. et al. (2022).

In an article titled "Bamboodzle as an Interactive Intelligent Simulation", the author states that Baamboodzle is very suitable for use at the elementary school level because it presents a competitive but fun learning atmosphere. The team quiz format encourages students to work together, think critically, and naturally enrich their vocabulary Amalinda (2024).

CONCLUSION

Based on the results of research on the development of Baamboodzle games for English language learning, it can be concluded that this media successfully meets the eligibility criteria in terms of material, design, and learning effectiveness. The validation results conducted by subject matter experts showed an average score of 87%, which falls into the "highly eligible" category, while media expert validation obtained an average score of 85%, also in the "highly eligible" category. These findings confirm that, substantively, the Baamboodzle media is in line with the objectives of English language learning and, technically, can be operated well in the classroom.

In terms of practicality, the results of a limited trial with a small group (10 students) showed that the level of positive response from students reached 90%, indicating that this media is easy to use, interesting, and able to foster interest in learning. A more extensive trial conducted with 30 students showed a significant improvement in learning outcomes. The average pretest score of 68.4 increased to 82.7 on the posttest after using the media, representing an increase of 21%. Statistically, the results of the paired sample t-test showed a significance value of < 0.05 , which means there was a significant difference between learning outcomes before and after using the Baamboodzle media.

In addition to improving learning outcomes, this media has also been proven to increase student motivation in learning English. Learning motivation questionnaire data shows that 88% of students feel more enthusiastic, 85% feel that learning is more enjoyable, and 82% feel that it is easier to understand the vocabulary and language structures taught. This is in line with the principle of game-based learning, which emphasizes the integration of game elements to create a more interactive, competitive, and collaborative learning experience.

Thus, it can be concluded that the development of Baamboodzle games for English lessons is not only feasible and practical to use, but also effective in improving learning outcomes and student motivation. This media can be used as an alternative innovative learning strategy



relevant to the needs of 21st-century education, particularly in supporting active learning and communication skills-oriented learning. Furthermore, further development can focus on adding digitalization features to make it more adaptive to technology-based learning.

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