Developing Animal Picture Game to Improve Young English Learners’ Plural and Singular Mastery

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Abstract

Interactive learning media can engage young learners to effectively absorb learning materials. Therefore, this developmental research was conducted to produce an interactive game that improves young learners’ mastery of plural and singular nouns and enrich young learners’ animal-related vocabulary. The researchers employed the ADDIE development model that began by analyzing problems related to the predetermined topic, analyzing the environment and work situation, designing the product, developing the product based on validation results from three expert validators, and conducting a product trial. The researchers investigated the product’s feasibility by performing a small-scale trial and a large-scale trial. The research findings indicate that the developed interactive game was practical and useful. In short, the developed interactive game is feasible to assist young learners in learning plural and singular nouns and enrich their vocabulary.

Keywords: Interactive game, plural and singular nouns, young learners.

Abstrak

Media pembelajaran interaktif dapat melibatkan pembelajar muda untuk menyerap suatu materi pembelajaran secara efektif. Oleh karena itu, penelitian pengembangan ini dilakukan untuk menghasilkan permainan interaktif yang meningkatkan penguasaan pelajar muda terhadap kata benda jamak dan tunggal dan memperkaya kosakata yang berhubungan dengan hewan. Peneliti menggunakan model pengembangan ADDIE yang dimulai dengan menganalisis permasalahan terkait topik yang telah ditentukan, menganalisis lingkungan dan situasi kerja, merancang produk, mengembangkan produk berdasarkan hasil validasi dari tiga validator ahli, dan melakukan uji coba produk. Para peneliti menyelidiki kelayakan produk dengan melakukan uji coba skala kecil dan uji coba skala besar. Hasil penelitian menunjukkan bahwa permainan interaktif yang dikembangkan praktis dan bermanfaat. Singkatnya, permainan interaktif yang dikembangkan layak untuk membantu pelajar muda dalam mempelajari kata benda jamak dan tunggal serta memperkaya kosa kata mereka.

Kata kunci: Permainan interaktif, kata benda jamak dan tunggal, pelajar muda.
INTRODUCTION

English is one of the most important subjects in Indonesia, and some of the educational levels oblige the students to master it. Students need to understand grammar or structure to communicate in both spoken and written forms in English. Grammar, as we all know, is the foundation of English. Listening, speaking, reading, and writing are all examples of employed (Silitonga, 2017). Learners will benefit from grammar if they can master all of these abilities.

In grammar, plural and singular material is taught at the elementary, middle, and high school levels. Young English learners should differentiate which noun needs to be expressed singularly and plurally based on the number of the noun. Commonly, a countable noun needs to add s-ending to signify that the noun is indeed plural. However, students face difficulty in using the s-ending noun (Astriyanti, 2016). Mistakenly expressing the singular or plural forms may cause grammatical errors. In fact, elementary school students often make mistakes in this naming and labeling things around them using the concept of singular and plural nouns (Yanto, 2016). Therefore, young English learners must understand how to correctly express plural and singular forms.

In learning, learners can utilize various learning media to assist them in learning. Learning media can deliver messages by stimulating thoughts, feelings, interests, and attention (Alvita & Airlanda, 2021). They can utilize printed books, digital books, magazines, audio, visual, audio-visual, and the internet in the learning activities. Conformity with the learning objectives, suitability of display and content with the concept, and practical, flexible, and durable media packaging are standards that must be met by learning media (Arsyad, 2014). Interactive media have a crucial role in the delivery of educational material, especially in elementary school. In elementary schools, teachers must facilitate English learning using wide arrays of exciting games and activities (Musiman & Prihatini, 2021) that are capable of explaining abstract learning materials (Novita & Sundari, 2020).

Effective and interactive learning media can help teachers teach the learning materials. However, not all learning media can be effectively utilized to be implemented in teaching and learning activities. For instance, the WhatsApp application may be ineffective to be implemented in elementary schools since it is hard for teachers to deliver the learning materials (Daheri et al., 2020). If it is applied effectively, interactive learning media could be a great asset in the teaching and learning activity; for instance, interactive games. Games, in any form, have their appeal for players. Games serve as entertainment, with rules and challenges aimed at reaching a gratifying score or level for the players (Ardiningsih, 2019).

The researchers developed the interactive game for use in classrooms. Personal computers are used to create interactive learning material that allows users to communicate with each other through text, graphics, audio, and moving images (Lainufar et al., 2020). The researchers employed Genially to develop the interactive game. Interactive posters, games, and infographics may be created with Genially since it is an online service specializing in creating compelling visuals (Dzenskevich, 2020).

The statements above indicate that teaching media plays a vital role in teaching and learning activities. However, the teachers at the school observed by the researchers stated that they did not utilize interactive teaching media. They delivered the material conventionally using the whiteboard and student worksheet.

Research has been conducted by utilizing Genially to improve students’ experience, collaboration skills, and motivation in learning (Vidergor, 2021). Another research developed a visual laboratory in a blended learning class (Manuel et al., 2019). However, no research has been conducted to develop an interactive game to foster young learners' ability to express singular and plural nouns and enrich their vocabulary.

The interactive game developed by the researchers is called Animal Picture Game. It aims to assist learners in learning plural and singular nouns. Besides, it also assists learners in enriching their vocabulary since the game contains animal-related vocabulary. The animals in the game are presented in cartoon format to attract
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This study aims to create an interactive game that will help young English learners enhance their ability
to detect plural and singular forms. The created game is named Animal Picture Game, and it requires students
to recognize animal-related vocabularies and express the single and plural forms. Several experts examined the
developed interactive game to enhance learners’ existing weaknesses, ensuring that the game is appropriate for
usage by students in the learning process.

METHOD

The research method employed in this study was Research and Development method (R & D). This
method is used to develop and evaluate the efficiency of products (Sugiyono, 2016). Furthermore, the
researchers employed the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) to
develop the interactive game. Figure 1 displays the development model.

![Figure 1. The ADDIE Development Model](image)

The study’s data came from the fourth-grade students of SDN 1 Kotaagung. The data was gathered using
a questionnaire and validation sheets. The questionnaire contained instruments for eliciting students’ opinions
on the product's feasibility. On the other hand, the validation sheets were used to investigate experts’ opinions
on the developed interactive game. The researchers conducted a small-scale trial on ten fourth-grade students
of SDN 1 Kotaagung and a large-scale trial on 30 fourth-grade students of SDN 1 Kotaagung. The collected
data were then analyzed using a Likert scale and adjusted to meet the validity standards (Djaali, 2008).

The experts who validated the product were the material experts, media experts, and language experts.
The experts and students responded to the Likert scale questionnaires, which contain five response criteria:
excellent (5), high (4), moderate (3), low (2), and poor (1). The feasibility criteria are displayed in Table 1.

<table>
<thead>
<tr>
<th>The Feasibility Criteria</th>
<th>Score Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% - 20%</td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>21% - 40%</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>41% - 60%</td>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td>61% - 80%</td>
<td>High</td>
<td></td>
</tr>
</tbody>
</table>
Analysis Stage

The analysis stage is concerned with analyzing work settings and the surroundings to determine what products need to be developed (Sugiyono, 2019). This research examined the difficulties students and teachers faced since the teachers rarely employed interactive learning media. The researchers looked for ways to help elementary school students overcome this problem with this information. Before developing the media, the researchers performed curriculum analysis, student characteristics analysis, and material analysis.

Design and Development Stage

The Animal Picture Game was designed by utilizing the Genially website. The researchers uploaded cartoon pictures of the animal obtained from pixabay.com to the Genially website. Users can first review the learning material in the game by clicking the learning resource presented. The learning resource contains the vocabulary for the animals and a direction on how to express singular and plural forms. After that, the users can start the game by clicking the start button. Here, the users are required to correctly answer the question related to the topic. They can answer by clicking the options.

Before proceeding to the next stage of development, the researchers validated the media through media and material experts’ validation. A media expert validated the media aspect, who focused on the design, display, and technical aspects. Furthermore, the material expert focused on the pedagogical and content aspects.

Implementation and Evaluation Stage

Researchers conducted a small-scale trial on ten fourth-grade students to see the feasibility of the developed media. After revising the media based on the result of the small-scale trial, the researchers performed a large-scale trial on thirty fourth-grade students. Upon completion, the students were requested to respond to the questionnaire distributed by the researchers.

RESULTS AND DISCUSSION

This research developed an interactive game to develop learners’ plural and singular noun mastery and vocabulary. The researchers implemented the ADDIE development model to produce the product. The researchers utilized the Genially website to design and develop the product. This research involved a media expert validator and a material expert validator to validate the product.

Experts Validation

A media expert and a material expert validated the developed product by focusing on the display, design, technical components, and pedagogical and content aspects. The results of experts’ validation are displayed in Tables 3 and 4.

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>81% - 100%</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Based on the tables, the media expert provided a score of 79%, which belongs to the high category. Also, the material experts provided a score of 84%, which belongs to the excellent category. Therefore, the developed
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The product is feasible and can be used to assist the learner in improving their singular and plural nouns mastery and enriching their vocabulary.

Small-Scale and Large-Scale Trials
The researchers conducted a small-scale trial on ten fourth-grade students of SDN 1 Kotaagung. The researchers directed the students to use the product. After playing the game, the researchers distributed questionnaires to investigate their responses. The students stated that they could use the media easily. They also stated that the display is attractive and easy to navigate. The learning resource provided also helped them to learn the material. The responses indicated that the product was feasible and could be implemented to learn plural and singular forms and enrich vocabulary. The summaries of students’ responses in the small-scale and large-scale trials are displayed in Tables 5 and 6.

<table>
<thead>
<tr>
<th>Table 4</th>
<th>Students’ Responses in the Small-Scale Trial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>Feasibility Category</td>
</tr>
<tr>
<td>79%</td>
<td>High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Students’ Responses in the Large-Scale Trial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>Feasibility Category</td>
</tr>
<tr>
<td>82%</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

The students’ responses were based on a questionnaire with 11 statements as follows:

<table>
<thead>
<tr>
<th>Table 6</th>
<th>Questionnaire Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Statements</td>
</tr>
<tr>
<td>11</td>
<td>I can use this learning media easily;</td>
</tr>
<tr>
<td>22</td>
<td>Menu display and menu descriptions are clear;</td>
</tr>
<tr>
<td>43</td>
<td>The buttons work well;</td>
</tr>
<tr>
<td>54</td>
<td>The language is easy to understand;</td>
</tr>
<tr>
<td>65</td>
<td>The questions are relevant to the learning material;</td>
</tr>
<tr>
<td>76</td>
<td>The colors and pictures make learning more fun;</td>
</tr>
<tr>
<td>87</td>
<td>Learning material using animations or graphics makes it easier for me to understand the learning material.</td>
</tr>
<tr>
<td>98</td>
<td>After using this learning media, I am more motivated to study ;</td>
</tr>
<tr>
<td>99</td>
<td>The instructions are clearly stated;</td>
</tr>
<tr>
<td>110</td>
<td>I can learn more independently using this learning media;</td>
</tr>
<tr>
<td>111</td>
<td>Learning using this interactive learning media is very fun.</td>
</tr>
</tbody>
</table>
Features of the Animal Picture Game

Table 7
The Flowchart of the Interactive Game

<table>
<thead>
<tr>
<th>Game Display</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1. Home Page</td>
<td>The home page contains the game title and the buttons to start the game and enter the learning resource menu.</td>
</tr>
<tr>
<td>Figure 2. Learning Material Menu</td>
<td>This page contains learning material represented by the icon of the animals. Users need to click on the icons to view the explanation.</td>
</tr>
<tr>
<td>Figure 3. The Learning Material</td>
<td>This page displays the learning material which becomes the focus of the game. The game presents the name of the animal to enrich users’ vocabulary. Also, there is a description for the users to correctly use the singular and plural forms.</td>
</tr>
<tr>
<td>Figure 4. Game Display</td>
<td>This page contains the picture of animals and a question asking the number of displayed animals. The users click either the A or B buttons to answer the correct singular and plural forms.</td>
</tr>
</tbody>
</table>
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The wrong answer page displays the option for the users to try answering the question again. There is also a button to take the users to the learning material page to review the learning material.

Figure 5. Wrong Answer Display

This page displays the correct answer statement and a button to continue to the next section of the game.

Figure 6. Correct Answer Display

This page contains the statement that the users have completed the game and the congratulatory remark. Here, the users can redo the game and view the learning material page.

Figure 7. Completed Display

This research aimed to design an interactive game to improve fourth-grade elementary school students' singular and plural forms mastery and enrich their vocabulary. The interactive game has been developed meticulously by following the ADDIE development model. The developed interactive game is declared feasible based on media and material experts' validation results. The experts stated that the product belongs to the high and excellent categories with 73% and 84% scores. Furthermore, the students' responses from the questionnaires state that the product belongs to the high and excellent categories with 79% and 82%. Thus, the developed interactive game is declared feasible and can improve students’ singular and plural forms mastery and enrich their vocabulary. The developed interactive game can be accessed at bit.ly/AnimalPictureGame.

In line with the results of this research, developmental research conducted previously states that the developed interactive learning media for science learning is feasible to be used and has high validity (Prasetyo & Astuti, 2021). Another developmental research has also been conducted on interactive learning media. The researchers found that based on the N-gain value (0.64), the developed video-based interactive learning media improved students’ learning interest in the moderate category (Anggraeni et al., 2021). The next developmental research has been conducted to develop I-spring-based interactive learning media. The researchers found that the developed interactive multimedia can foster students’ critical thinking skills proven by the results of the t-
test (Sig. (2-tailed). 0,000 < 0,05) (Muchtar et al., 2021). The last developmental research was conducted to develop SETS-based interactive learning media to develop students’ critical thinking skills (Firdaus et al., 2020). The researchers found that the developed media is declared valid and can improve students’ critical thinking skills.

The product developed in this development research contributes to the practice of English teaching and learning for young learners. The product has been developed by considering the target users’ level. Therefore, the display has been designed as attractive as possible by incorporating cartoon characters to attract their attention. The language used to deliver the game’s content has been set to accommodate young learners’ basic English mastery.

However, the developed product contains some limitations. First, the learning content is limited to only focusing on one learning material, namely plural, and singular nouns. Second, the vocabulary is still limited to common nouns, especially animals. Some methods could be taken for the betterment of the interactive game. One of which is by integrating several learning materials and a wider range of vocabulary.

CONCLUSION

This media was developed by employing the ADDIE development model assisted by the Genially website to produce an interactive game for the fourth-grade elementary school students. The product is declared feasible based on media and material experts’ validation results and the student's responses. The media is easy to navigate and can help learners improve their singular and plural forms mastery and enrich their vocabulary. The researchers suggest that teachers use this media in the mathematics learning process in the classroom and at home with the parent's guidance. The researchers suggest further research to widen the scope of the material and utilize the Genially website to produce other interactive games.

REFERENCES


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