

Development of a traditional game introduction application in Indonesia based on the GlideApps application 'gamesin'

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ABSTRACT

Traditional games in Indonesia have high cultural value and play an important role in children's education, but are more popular by modern games. With the rapid development of technology, it is important to preserve traditional games through digital media. This study aims to develop a Glideapps-based application called "Gamesin" which introduces traditional Indonesian games.

The method used is Research and Development by adapting the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). Data were collected through quantitative techniques with questionnaires given to 25 respondents from various professions, such as students, teachers, and the general public, to assess the practicality of the application. Testing was carried out through direct access by users and assessments of appearance, feasibility, application, and graphics. The results of the study showed that the "Gamesin" application received a very valid rating with an average percentage of 93% in four main aspects: presentation (95%), feasibility (93%), application (89%), and graphics (96%). The presentation of material in this application is considered easy to learn by users, making this application effective for use in the learning process. The conclusion of this study is that the "Gamesin" application is very valid based on practicality and can be used as an alternative media in introducing traditional Indonesian games to children, thereby helping to preserve culture and provide an interactive learning experience.

I. INTRODUCTION

Traditional games in Indonesia have high cultural value and can stimulate various aspects of child development, such as motoric, cognitive, emotional, and social. However, its existence is currently threatened by the development of technology and modern games that are more interesting for children. (Aprilia et al., 2023)Glideapps application plays an important role in increasing the Introduction of Traditional Games in Indonesia by providing a digital platform that allows children to learn and play traditional games interactively. This application provides a new way for children to get to know traditional games through the media they like, namely, digital technology. (Julianus et al., 2020)By adapting the ADDIE model in its development, this application ensures an effective and enjoyable learning process (Lin et al., 2025).

However, in the modern context, children spend more time with electronic games that provide attractive graphics and dynamic interactions, making traditional games less attractive (DiCesare et al., 2025). This creates a contradiction between efforts to preserve cultural heritage through traditional games and the tendency of children to prefer modern games. (Senoprabowo et al., 2018)Although traditional games are able to stimulate various aspects of child development, such as motor, cognitive, emotional, and social, efforts to introduce these games to the younger generation are often less effective due to the lack of interesting interactive media. (Arga et al., 2020)

A positive aspect of this research is the development of the Glideapps-based application "Gamesin", which allows children to learn about traditional games through the digital platform they love.(Rahmawati et al., 2021)This application allows children to explore traditional games in a more interactive and engaging way. However, the downside is the potential loss of direct play experiences with nature and the surrounding environment, which usually occur in traditional games.(Aisyah et al., 2020)In addition, there is still a possibility that children may feel less interested if the application is not able to provide the same interesting experience as modern games. Although the "Gamesin" application has been developed, it is still unknown whether this application will be well-received by Indonesian children. This study still has to prove that this application can significantly increase children's interest in traditional games and whether they will actively use this application in their daily lives (Shadan et al., 2025).

Previous studies, such as "Traditional Games" by J. Waterhouse (2009) and "Character Learning Through Traditional Games Urang Banjar" by A. Rakhman, B. Wibawa, and ET Studies (2019), have discussed the importance of traditional games and how they can be used as learning media. However, neither study discusses the aspects of technology and interactive media in introducing traditional games. This creates a research gap in this study, namely, the lack of research that utilizes mobile application technology as the main medium to introduce traditional games to children.(Tringham, 2014)

The novelty of this study is the use of Glideapps-based applications that allow children to learn about traditional games through media that is familiar to them. This application provides an interactive and engaging learning experience,

which has never been studied in depth in previous studies.(Rahmat et al., 2019)In this case, can the "Gamesin" application play an effective role in preserving traditional games amidst the onslaught of modern games? This study will test the practicality, feasibility, and fun of using this application (Mirshahi et al., 2025). To preserve traditional games, the development of a Glideapps-based application called "Gamesin" tries to utilize digital technology so that this game remains in demand by the younger generation (Fathi Najafi et al., 2025). The study shows that the "Gamesin" application received a very valid rating with an average percentage of 93% in four main aspects: presentation, feasibility, application, and graphics, indicating its practicality and effectiveness in introducing traditional games to children. The purpose of this study is to develop a Glideapps-based application called "Gamesin" that can introduce Indonesian traditional games to children effectively, with the hope of preserving culture and enriching their learning experience (Lee et al., 2025).

Previous studies, such as "Traditional Games on The Social Skill of Students in The Social Science Learning of Elementary School" by YA Nugraha, E. Handoyo, and S. Sulistyorini (2018), discussed the influence of traditional games on students' social skills, but did not touch on the interactive technology aspects that can be used to introduce these games to children.

II. METHODOLOGY

This study uses the Research and Development (R&D) method to develop a Glideapps-based application called "Gamesin" as a medium for introducing traditional Indonesian games (Yue et al., 2025). This method was chosen because the goal is to create a useful product that can be implemented in a learning context. The research design used adapts the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation), which is one of the popular and effective learning design models in building training programs and application development.(Sugiyono, 2012)

The population used in this study is the general public in Indonesia who have the potential to access the "Gamesin" application to learn traditional games. The sample taken was 25 people from various professional statuses, such as students, teachers, lecturers, and the general public. This sample was chosen to represent various demographic groups who might use this application in the context of education and learning (Prahm et al., 2025).

The research subjects in this study are users of the "Gamesin" application who will access, use, and provide feedback on the application (Scherer et al., 2025). The research instrument used is a questionnaire containing questions related to the practicality, feasibility, application, and graphics of the learning application. This questionnaire was given to respondents after they had tested the application to collect quantitative data on their experiences (Creighton et al., 2025).

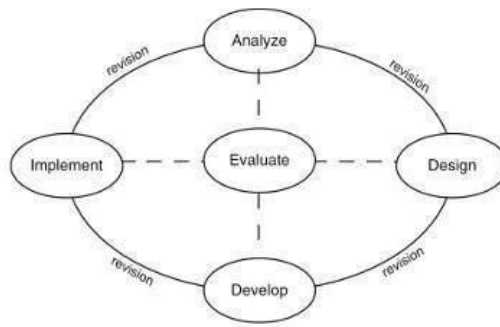


Figure 1. Stages of the ADDIE method. Source: (Branch, 2009)

1. Analysis Stage

The analysis stage is carried out by reviewing and searching for the data needed to develop an application-based learning application for traditional Indonesian games using observation techniques on current environmental conditions (Shtoots et al., 2025).

- Analysis of technological progress, the development of which is now very real, so that the use of technology can no longer be avoided, including in the world of education.
- Analysis of the origins of traditional games in Indonesia, which is the place where these games exist.
- Analyze how to play traditional games well and correctly.

2. Design Stage

At this stage, a design or creation of a design will be carried out on the application system for learning traditional Indonesian games based on the application, according to the results of the analysis stage. This design stage is carried out with the hope that application users can access the material or information presented quickly and easily. The appearance of the application for learning traditional Indonesian games, based on the application with the name Gamesin, requires a design that is as attractive as possible, with the aim that application users feel comfortable and enthusiastic when using it.

Making an application for learning traditional Indonesian games based on applications through the Glideapps software. Thus, in making this application, you only need to make a design regarding the application model that will be made. Here is the appearance of the Glideapps software that can be downloaded through its official website.

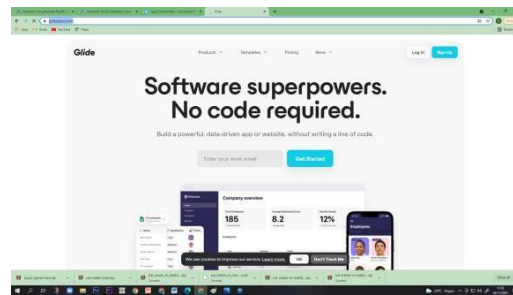


Figure 2. Glideapps Software

3. Develop Stage

The development in this study is the process of making an Indonesian traditional game learning application based on the Glideapps application, according to the established design. The creation of this application uses the Glideapps software.

- Enter data in the form of material to be presented.
- Set user access rights in the application.

4. Implement Phase (Implementation/Direct Trial)

Try the application of learning traditional Indonesian games based on the glideapp application that has been created through the development stage. Testing is carried out on the general public who act as users of the application. Testing for this application uses an assessment instrument in the form of a questionnaire based on existing application standards (Pramodh Krishna et al., 2025).

- Conduct a trial accessing the application for users.
- Conduct testing regarding the validation process or application feasibility on users using a questionnaire assessment instrument.

5. Evaluate Stage (Evaluation/Assessment)

The evaluation stage is carried out based on data that has been obtained through the implementation stage, which is an assessment and trial process. The results of the evaluation will be processed to determine the feasibility of the Indonesian traditional game learning application based on the GlideApp application. Processing data from questionnaires that have been filled out by users about the feasibility of the application.

The data collection technique in this study used quantitative techniques through questionnaires or assessment sheets regarding learning applications given to the general public, as many as 25 people from various statuses of students, lecturers/teachers, and the general public (Zhao et al., 2025).

The research instrument used as a measuring tool for product assessment refers to the validation results in the form of a percentage consisting of 4 aspects, namely Presentation, Feasibility, Application, and Graphics. To analyze the data from the assessment sheet, the researcher used the analysis shown in Table 1.

Table 1. Respondent Assessment Scale

Assessment criteria	Weight of Value
Not good	1
Not good	2
Good	3
Very good	4

Source: (Riduwan, 2015)

After the respondents have completed the assessment sheet using the assessment scale as in Table 1, which is used as a reference, the total score of the respondents' answers can be calculated using the formula in Table 2 below.

Table 2. Formula for Calculating Respondents' Total Score

Not good	nx 1
Not good	nx 2
Good	nx 3
Very good	nx 4
Σ Respondents' Answers	

Source: (Riduwan, 2015)

Then, to determine the validity value based on practicality with a percentage value, this can be done by dividing the total score from the respondents' answers, so that the following formula is obtained:

$$\text{Presentase} = \frac{\sum \text{Jawaban Responden}}{\sum \text{Skor Max Responden}}$$

Source: (Riduwan, 2015)

The rating results (percentage) have been determined, the next step is to draw conclusions about validity based on the practicality of the learning application by adjusting the percentage results with the percentage criteria shown in Table 3 below.

Table 3. Percentage Assessment Criteria

Assessment criteria	Percentage
Invalid	25% to 43%
Less Valid	44% to 62%
Valid	63% to 81%
Very Valid	82% to 100%

Source: (Sugiyono, 2015)

III. RESULTS AND DISCUSSION

This research was conducted with the aim of developing a learning application that can introduce Indonesian traditional games to children through digital technology (Papadaki et al., 2025). Based on the results obtained, namely: At the analysis stage, data was collected on technological advances, the origins of traditional games, and how to play them. This analysis shows that traditional games have a very humane educational value and can stimulate various aspects of child development. (Senoprabowo et al., 2018)

However, in the modern context, children are more interested in electronic games that provide attractive graphics and dynamic interactions. This creates a contradiction between efforts to preserve traditional games and children's tendency to prefer modern games. The design stage is directed at creating applications that are easily accessible and attractive to users (Yang et al., 2025). The appearance of the "Gamesin" application is designed to be as attractive as possible so that children feel comfortable and enthusiastic when using it. This application uses Glideapps software as a development platform, which allows the creation of learning applications quickly and effectively. Application development is carried out by entering material data about traditional Indonesian games, such as the name of the game and how to play the game. This application also displays a three-dimensional model that supports the presentation of materials, creating a rural atmosphere and several types of traditional Indonesian games. Thus, users can experience a more realistic and interactive learning experience. (Viola et al., 2020)

Direct testing of the application was carried out at the implementation stage. The sample taken was 25 people from various professional statuses such as students, teachers, lecturers, and the general public. Respondents were asked to access and provide feedback on the "Gamesin" application through a questionnaire. This questionnaire contains questions related to the practicality, feasibility, application, and graphics of the learning application (Chen, 2025).

Based on the results of the validation of the practicality of the learning application, the results showed very positive results (Tang et al., 2025). From a total of 25 respondents, the following rating results were obtained: (1) Presentation Aspect (ease of learning the application): 95% with Very Valid criteria. This proves that this learning application is easy to learn. (2) Feasibility Aspect (ease of using the application): 93% with Very Valid criteria. This shows that the use of this application is in the easy category. (3) Application Aspect

(usefulness of the application in learning): 89% with Very Valid criteria. This proves that this learning application has high utility value. (4) Graphic Aspect (comfort and pleasure in accessing the application): 96% with Very Valid criteria. This shows that user comfort and pleasure are guaranteed when accessing this application.

From the statistical analysis, the final average percentage was obtained at 93% which falls into the Very Valid criteria based on practicality. This shows that the "Gamesin" application is very valid and effective to be used in the learning process about traditional Indonesian games(Zhou et al., 2025).

Based on the results of the respondents gave positive feedback regarding the experience of using the application. They stated that this application helps them to understand traditional games better, provides an interesting and interactive learning experience, and has a pleasant appearance. Some respondents also suggested enriching the application features by adding video tutorials or other visual content to make the learning process more dynamic and not monotonous.

The product developed is an application-based learning application for traditional Indonesian games. This learning application contains materials such as the names of types of traditional Indonesian games and how to play them correctly. Shown in Figure 3.

In this application, there are several three-dimensional models that support the application in delivering the material that has been presented. The application display consists of several three-dimensional models that present a rural atmosphere and several types of traditional Indonesian games. Shown in Figure 4 for the display in the form of an application and Figure 5 for the display in 3D (three dimensions) (Haneklaus et al., 2025)

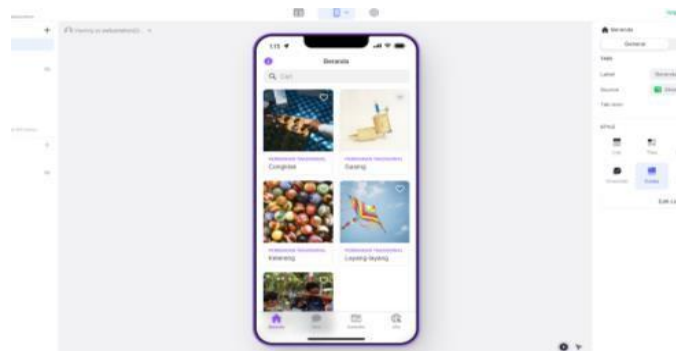


Figure 5. Gamesin application display

(The application can be accessed via <https://permainantradisional.glideapp.io/>)

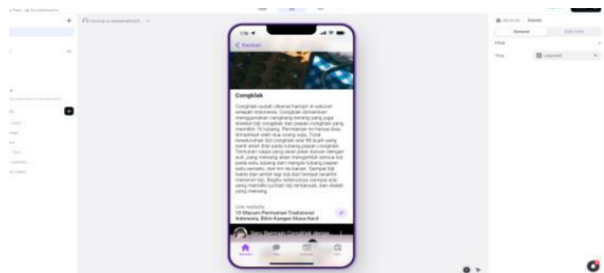


Figure 3. Learning Application Material Content

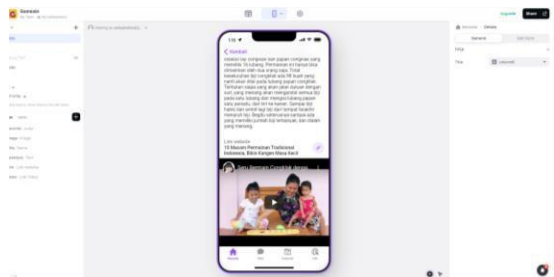


Figure 4. Application View

To find out the quality of the application that has been created, whether it has achieved validity based on practicality that is in accordance with the standard, direct testing and filling out of questionnaires to the respondents concerned were carried out. Respondents involved in this testing were the general public, as many as 25 people from various professional statuses, such as students, the general public, and lecturers/teachers (Choi et al., 2025).

The results of the study for validation based on the practicality of the learning application were carried out by 25 respondents. The validation results in the form of percentages are in Table 4, which consists of 4 main aspects, namely presentation, feasibility, application, and graphics.

Table 4. Learning Application Validation Results

<i>Aspect</i>	<i>Information</i>	<i>Rating Results (%)</i>	<i>Criteria</i>
Presentation	The level of ease in learning the application	95%	Very Valid
Eligibility	Level of ease in using the application	93%	Very Valid

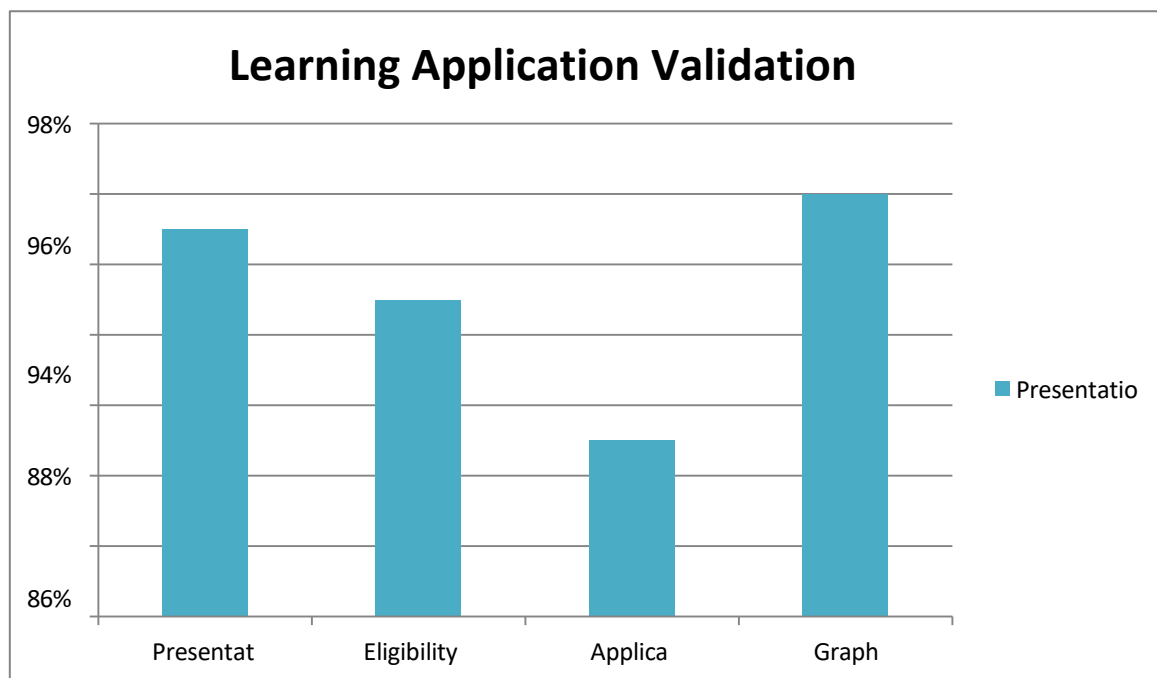
Application	The level of application usability in learning	89%	Very Valid
Graphic	The level of comfort and pleasure in accessing the application	96%	Very Valid
Average of All Aspects		93%	Very Valid

*** Note:** Validity based on practicality

Table 4. Shows validation results data based on the practicality of the Indonesian traditional game learning application, based on the Glideapps application, by respondents. The Presentation Aspect (ease of learning the application) obtained a rating of 95% with the criteria Very Valid based on practicality. This proves that this learning application is included in the easy to learn category.

Then, the feasibility aspect (convenience in using the application), the rating results were 93% with the criteria Very Valid based on practicality. This proves that the use of this learning application is included in the easy category. Then, the Application aspect (the usefulness of the application in learning) obtained a rating of 89% with the criteria Very Valid based on practicality. This proves that this learning application has utility if used in learning. Then, the Graphic aspect (comfort and pleasure in accessing the application) obtained a rating of 96% with the criteria Very Valid based on practicality. This proves that user comfort and pleasure are guaranteed when accessing this learning application.

Figure 3. Graph of Learning Application Validation Results



From Table 4 and Figure 3, it can be observed that the validation results of the learning application get a rating with a percentage of 88.55% which is included in the Very Valid criteria based on practicality. Thus, it can be concluded that the application of learning traditional Indonesian games based on this application is very valid based on practicality so it is good if used in learning.

IV. CONCLUSIONS AND RECOMMENDATIONS

Thus, this study has successfully developed a learning application called "Gamesin" which uses the Glideapps platform to introduce Indonesian traditional games to children. This application contains material about the names of traditional games and how to play them, displayed in the form of attractive and interactive three-dimensional graphics. Through validation carried out by 25 respondents from various backgrounds, this application received a very valid rating with an average percentage of 93% in four main aspects: presentation, feasibility, application, and graphics.

The "Gamesin" application is very valid based on its practicality and can be used as an alternative medium in introducing traditional Indonesian games to children. The implementation of this application in the context of education can help preserve culture and provide an interactive and enjoyable learning experience. This application also shows that digital technology can be used to present traditional educational materials in a more interesting and easily understood way by modern children.

Implications

1. Interactive Learning: The "Gamesin" application shows that traditional learning can be adapted to the interests and needs of modern children through interactive digital media. This can increase learning motivation and provide a more dynamic learning experience.
2. The Importance of Technology in Education: This study shows that technology can not only be used for modern games but also to preserve culture through the introduction of traditional games. Thus, technology must continue to be integrated into the educational curriculum to utilize the available potential.
3. Cultural Preservation: Through the use of applications such as "Gamesin", traditional Indonesian games can be introduced to the younger generation, thereby preserving cultural heritage and teaching cultural values to children in an interactive manner.
4. Innovation in learning: The development of the "Gamesin" application shows the importance of innovation in learning. Educators and application developers are known to think creatively in presenting educational materials to make them more interesting and relevant to children's needs.

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