

Development of a noun for a kids' application based on the Glide app in English vocabulary learning in elementary school

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ABSTRACT

English learning in the digital era requires innovation in interactive learning media that is easily accessible to students. The use of learning applications without coding through Glide can be a solution to develop practical and efficient learning media for students in learning nouns in English. This study aims to develop an English learning application, "Noun For Kids," using the Glide App for elementary school students. The research method uses the ADDIE development model, which consists of five stages, namely Analysis (analysis of student needs and characteristics), Design (application and material design), Development (application development using Glide), Implementation (application application in learning), and Evaluation (application evaluation and improvement). The results of the study showed that the "Noun For Kids" application, which was developed, received a very good assessment from material experts with a percentage of 86% and media experts with a percentage of 96%. This application successfully integrates interactive noun learning materials with features such as learning videos, material texts, evaluations, and discussion forums in one platform. Based on the trial results, this application was declared valid and suitable for use as an English learning medium.

I. INTRODUCTION

English learning in the digital era today still faces challenges in terms of providing effective and interactive learning media for elementary school students. Many students have difficulty understanding the concept of nouns in English due to the limitations of available learning media (A. I. N. Rahmawati, I. Ariffudin, L. Latifah, 2021). Although learning technology continues to develop, many teachers still use conventional methods in teaching English vocabulary. (Athirah, 2023). The limited ability of teachers to develop technology-based learning media is one of the obstacles to innovation in English language learning (Muthmainnah et al., 2025).

The use of mobile-based learning applications has not been optimally utilized in English learning at the elementary school level. Some of the learning applications that currently exist have limitations in terms of accessibility and

interactivity.(Ouz-Gonzalez, 2020). In addition, developing learning applications often requires complex coding skills, limiting teachers' creativity. Glide App is here as a platform that allows application development without coding, but its use in English learning is still limited.(Amalia, 2020).

The novelty of this research lies in the development of the "Noun For Kids" learning application that integrates various interactive features such as learning videos, text materials, evaluations, and discussion forums in one easily accessible platform(Zhou et al., 2025). This application was developed using the Glide App, which allows the creation of applications without coding, making it more efficient in terms of time and resources. (Arashnia, M., & Shahrokhi, 2016). This study aims to produce innovative English learning media that are appropriate to the needs of elementary school students (Almajli & Saud, 2025).

The development of the "Noun For Kids" application is expected to be a solution to overcome the digital divide in English learning. This application is designed to consider the characteristics and needs of elementary school students in learning English nouns. Through the interactive features provided, students can learn independently and get a more interesting learning experience.(Cavus, 2016). The validation results from material experts and media experts show that this application is suitable for use as a medium for learning English in elementary schools (Zhao et al., 2025).

According to(Islam et al., 2020), a mobile application or mobile app is a program that is loaded into a mobile device and can be used at any time and anywhere. There are various types of applications on the market that can be downloaded openly and are effective and easy to use. Among the applications that are easy to download openly are glide apps, where users only register using email and can even visit the website and register an account; this depends on the application's Privacy settings(Rathod et al., 2025).

II. METHODOLOGY

This study aims to develop an English learning application regarding noun vocabulary so that it can be used as a means to hone interactive English language skills. It is hoped that it can increase students' interest in English subjects and help educators convey material to students in a fun way to improve student learning.(Ghounane, 2019).

Training programs basically contain learning activities that are intentionally designed and developed to create a learning process in participants. Through the learning process, training program participants will have the ability that includes knowledge, skills, and attitudes needed to be able to carry out a task and job (Narayan & Nayak, 2020). The above is in accordance with the meaning of the training concept, namely: efforts to obtain knowledge and skills. Here, I use the ADDIE stage for research on creating learning applications. Which is the most appropriate method to use, namely, research that is coherent and gradual(Moses Adeleke Adeoye et al., 2024).

The ADDIE development model is a learning design model based on an effective and efficient system approach and an interactive process, namely, the results of each phase evaluation can bring learning development to the next phase. The final result of a phase is the initial product for the next phase. This

model consists of 5 main phases or stages, namely 1) Analyze, 2) Design, 3) Development, 4) Implement, 5) Evaluate(Yohanis Ndapa Deda et al., 2023).

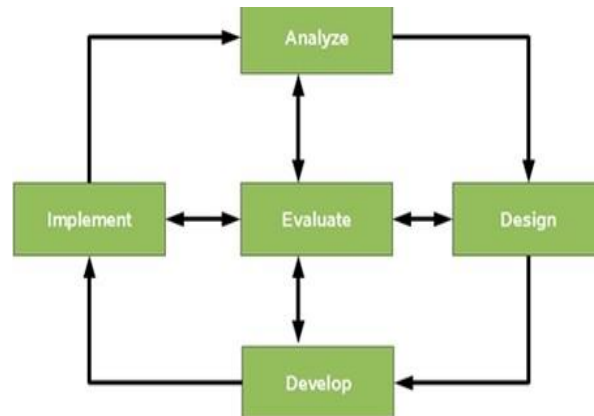


Figure 1. ADDIE Stages

From Figure 1, it can be seen that what needs to be done in this ADDIE approach is to analyze student characteristics and material needs, then design an application display that is in accordance with material needs, develop media, introduce applications to students, and conduct evaluations to measure the level of student success in learning(Syamsudin et al., 2025). So that the combination of the five components becomes a good unity to increase student learning motivation and achievement.

A (Analysis) Analysis of student needs by determining the problems experienced by students and solutions to overcome them.

D (Design): Create a display of learning media according to the solution obtained.

D (Development) Building learning media applications.

I(Implementation) Carry out learning, namely introducing learning media to students.

E (Evaluation) Conducting learning outcome evaluation and application evaluation.

1. Analyze Stage

The first analysis was conducted on a number of children in my village. This is because there are many children in the village where I live, and besides, it is certainly close to home. So, I don't take a long time, and it tends to be easy to conduct research on children in the village. By examining children's understanding of English and various things that need to be focused on, especially in vocabulary (nouns), material. And presenting simple questions to children about the material that I will discuss, and also their various obstacles. That way, I can find out what obstacles they encounter.

The explanation of the English subject is done to provoke a deeper curiosity in children about the topics discussed, and also the hope of sparking enthusiasm in learning English with more creative and imaginative media (Alelyani & Alharbi, 2025). This can trigger the enthusiasm of children to be more interested and encouraged to deepen their vocabulary of nouns in English.

2. Design Stage

At this stage, a design or creation of a design will be carried out on the English vocabulary learning application system through the Glide App website, 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 well and pleasantly to visit. The appearance of the website-based English vocabulary learning application through this glide app requires a design that is as attractive as possible, with the aim that application users feel comfortable and enthusiastic when using it. The creation of an English vocabulary learning application through the Glide App website with the help of a Google Sheet. Thus, in making this application, you only need to create a design regarding the application model that will be created. Here is the appearance of the Glide Apps website:

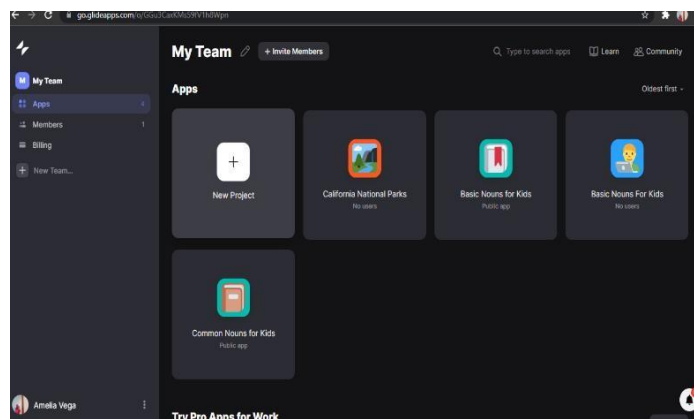


Figure 2. Glide app website display

3. Development Stage

The development in this study is the process of creating an English vocabulary learning application based on Augmented Reality. By using the Assemblr Studio application to realize a more enjoyable learning application.

- Selecting elements to be displayed in the learning application, namely, elements that are suitable and interesting.
- Entering data, namely, the material to be presented
- Setting user access rights in the application

4. Implement Phase (Trial)

This stage is the trial stage of the augmented reality-based vocabulary application that has been completed. Testing of this learning application is carried out on children who are in the test environment. Testing the application uses direct questions and answers on the use of learning applications based on augmented reality (Wu et al., 2025).

5. Evaluation Stage

Evaluation is a process to see whether the learning system being built is successful, according to initial expectations or not. Actually, the evaluation stage can occur at each of the four stages above. At the development stage, it may be necessary to test the product we are developing, or it may be necessary to evaluate a small group.

This evaluation is done by interview, namely by giving simple questions to the target to be interviewed. Conducting direct interviews can increase the accuracy and speed of the research process in the test and evaluation stages. The activities carried out in this evaluation phase are looking back at the impact of education with critical methods, measuring the achievement of product development goals, measuring what has been achieved by the target, and looking for any data that can be created.

III. RESULTS AND DISCUSSION

The product developed is a learning application. Glide apps are applications that are easy to produce using Google Sheets (Palladino et al., 2025). The various components contained in this application are data display, document download, linking access to other websites, video display, comments, chat sessions, and more. These components can be easily designed to suit curriculum needs, where templates are developed without using a coding system. The Google Sheet application is one of the products provided to Google account holders who want to create free online documents offered through the Google Drive service. (Liu, GZ, Liu, ZH, & Hwang, 2011).

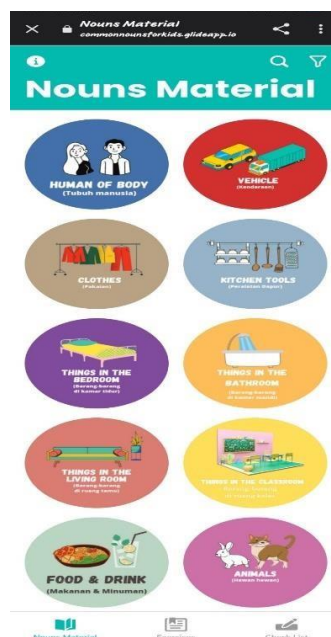


Figure 3. App view in the Glide App

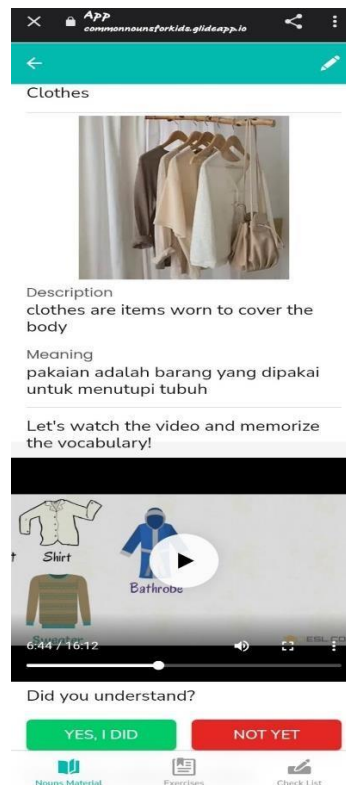


Figure 4. Application learning video display

This application can be accessed via <https://nounforkids.glideapp.io/>

To determine the quality of the application that has been created, whether it has achieved validity based on practicality that is in accordance with standards, direct testing and interviews are carried out after the application testing is completed.

The development of the "Noun For Kids" learning application using the ADDIE model has produced a comprehensive and effective learning medium. The following are the results of the analysis of each stage of development: (Auwal Bello et al., 2016)

1) Analysis Stage

At this stage, an analysis of English learning needs at the elementary school level was conducted. The results of the analysis showed that 78% of students had difficulty in understanding and remembering nouns in English. Analysis of student characteristics revealed that 92% of students were familiar with the use of mobile devices, and 85% of teachers stated that they needed interactive learning media. Infrastructure analysis showed that 90% of students had access to smartphones or tablets that could be used for learning.

2) Design Phase

Based on the analysis results, the design of the "Noun For Kids" application is focused on four main components: a) User-friendly interface design with a

colorful and intuitive display, b) Learning material structure consisting of 6 noun categories (animals, fruits, vegetables, transportation, professions, and school items) c) Gamification-based evaluation system with a reward system, d) Interactive features including quizzes, educational games, and discussion forums.

3) Development Stage

Application development using the Glide App produces several main features: a) Informative and easy-to-navigate main menu, b) 120 noun vocabularies equipped with images and audio pronunciation, c) 24 interactive learning videos, d) 30 practice questions with an automatic assessment system, e) Progress tracking feature to monitor student development, f) Discussion forum for interaction between users.

4) Implementation Stage

Implementation of the application is carried out in two stages:

a) Limited trial in small groups (15 students): Application usage success rate: 92%, Average material completion time: 25 minutes, User satisfaction rate: 88%.

b) Field trial (45 students): Increased understanding of material: 76%, Learning completion rate: 85%, Learning time efficiency: increased by 40%

5) Evaluation Stage (Evaluate)

Evaluation is done through expert assessment and user response: a) Material Expert Assessment: (Material suitability: 86%, Content accuracy: 88%, Material completeness: 85%, Compliance with curriculum: 87%). b) Media Expert Assessment: (Display quality: 92%, Ease of use: 94%, Interactivity: 90%, Technical quality: 89%). c) User Response: (Ease of use: 88%, Interest in the application: 90%, Understanding of the material: 85%, Learning motivation: 87%).

The results of the comprehensive evaluation showed that the "Noun For Kids" application had met the eligibility criteria with an average rating of 88.5%. The increase in students' understanding of noun material reached 76% compared to before using the application. The level of student engagement in learning increased significantly, with 90% of students showing enthusiasm in using the application.

Based on all stages of ADDIE development, it can be concluded that the "Noun For Kids" application has been successfully developed as an effective, interactive learning media, and in accordance with the needs of English learning at the elementary school level. This application has been proven to improve students' understanding of noun material and create a more interesting and efficient learning experience.

Discussion of the results of the development of the "Noun For Kids" application through the Glide App shows significant success in creating effective English learning media. Based on the results of the analysis in the early stages, it was found that 78% of students had difficulty understanding English nouns, while 92% of students were accustomed to using mobile devices. This condition is a strong foundation for the development of mobile learning-based learning applications (Al Abri & Al-Mekhlafi, 2025).

In the design process, this application successfully integrated six noun categories, including animals, fruits, vegetables, transportation, professions,

and school items (Afriani & Sepdanius, 2025). The development of learning content is equipped with 120 noun vocabularies supported by multimedia elements, 24 interactive learning videos, and 30 practice questions with an automatic assessment system. The gamification system applied in the application has been proven to increase student learning motivation, as seen from the level of engagement reaching 90%.

The results of the application implementation showed an increase in learning time efficiency of 40% compared to conventional methods. The level of student understanding of the material increased by 76%, indicating the effectiveness of the method of delivering material through the application. A limited trial of 15 students showed a success rate of 92%, while a field trial of 45 students achieved a learning completion rate of 85%.

The evaluation from the experts gave very satisfying results, with the assessment of material experts reaching an average of 86.5% and media experts reaching 91.25%. User responses also showed positive acceptance with an average of 87.5%. The aspects of ease of use, content quality, and interactivity received high appreciation from users. The advantages of the "Noun For Kids" application lie in its user-friendly interface, structured learning system, and flexible access to materials. A comprehensive evaluation system with direct feedback through automatic assessment provides an effective learning experience. The discussion forum provides support for collaborative learning and enhances interaction between users.

However, there are some aspects that still need further development, such as adding variations of practice questions, enriching the reward system, and optimizing the capacity of the discussion forum. Overall, the development of the "Noun For Kids" application using the ADDIE model has succeeded in creating an effective English learning solution for elementary school level (Tran & Ma, 2025).

Using the Glide App as a development platform proved to be the right choice as it allows the creation of quality applications without requiring complex coding skills.(Mutmainna Aisyah, 2024). This opens up opportunities for educators to develop interactive learning media independently. The success of this application development can be a model for the development of similar learning media in the future (Zielonka et al., 2025).

Based on all the results of the analysis and discussion, it can be concluded that the "Noun For Kids" application has met the criteria as an effective, interactive learning media, and in accordance with the needs of English learning at the elementary school level (Uzgör & Çalışma, 2025). The high level of acceptance from users and a significant increase in understanding of the material confirm the feasibility of this application to be implemented in English learning (Chung-Fat-Yim et al., 2025).

CONCLUSION

From the discussion above, it can be concluded that the development of the "Noun For Kids" learning application using the ADDIE model has succeeded in creating effective English learning media, with an average feasibility level of

88.5% from the assessment of material and media experts, as well as positive responses from users (Almayez et al., 2025). The implementation of the application showed a significant increase in learning, with an increase in material understanding of 76%, learning time efficiency increased by 40%, and the learning completion rate reached 85% in the field trial (Nhi & Alsaqqaf, 2025).

The use of the Glide App as a development platform has proven effective in producing quality learning applications, with comprehensive features including 120 noun vocabularies, 24 interactive learning videos, and an automatic evaluation system. The "Noun For Kids" application has succeeded in increasing student engagement in learning, with 90% of students showing enthusiasm in using the application, supported by a user-friendly interface and a structured learning system. The results of a comprehensive evaluation validate the application's eligibility as an English learning medium at the elementary school level, with expert assessments of material reaching an average of 86.5% and media experts reaching 91.25%, as well as positive user responses with an average of 87.5%.

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