JMTAS: Journal of Multimedia Technology and Applied Software
Published: October 30, 2025
E-ISSN: 3047-4760

DESIGN OF SUNDANESE LANGUAGE INTRODUCTION LEARNING APPLICATIONS

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ABSTRACT

The declining interest in learning the Sundanese language, especially among younger generations, is influenced by the limited availability of engaging and easily accessible learning media. This study aims to develop an Android-based application for introducing basic Sundanese as an interactive and flexible alternative learning tool. The development process adopts the *Multimedia Development Life Cycle* (MDLC), which includes concept, design, material collecting, assembly, testing, and distribution stages. The application provides fundamental Sundanese learning materials such as numbers, greetings, self-introduction, and non-verbal language, complemented by a quiz feature to evaluate user comprehension. Blackbox testing indicates that all application features function properly. Usability testing involving 30 respondents using a Likert scale obtained a feasibility score of 85.5%, categorized as highly feasible. The average quiz score of 96 further demonstrates the application's effectiveness in enhancing users' understanding of the material. Therefore, this learning application is considered suitable as a supporting tool for learning the Sundanese language and has the potential to increase local language literacy in the community.

Keywords: Learning Application; Sundanese Language; Android, MDLC.

ABSTRAK

Menurunnya minat belajar bahasa Sunda di kalangan masyarakat, khususnya generasi muda, dipengaruhi oleh minimnya media pembelajaran yang menarik dan mudah diakses. Penelitian ini bertujuan untuk mengembangkan aplikasi pembelajaran pengenalan bahasa Sunda berbasis Android sebagai media alternatif yang interaktif dan fleksibel. Metode pengembangan yang digunakan adalah Multimedia Development Life Cycle (MDLC), yang meliputi tahapan konsep, desain, pengumpulan material, perakitan, pengujian, dan distribusi. Aplikasi ini menyediakan materi dasar bahasa Sunda, seperti angka, salam, perkenalan diri, dan tingkat bahasa, serta dilengkapi dengan fitur kuis untuk evaluasi pemahaman. Hasil tes blackbox menunjukkan bahwa semua fitur aplikasi berjalan sesuai dengan fungsinya. Pengujian kegunaan terhadap 30 responden menggunakan skala Likert menghasilkan skor kelayakan sebesar 85,5%, yang termasuk dalam kategori sangat layak. Skor kuis pengguna rata-rata 96 menunjukkan bahwa aplikasi ini efektif dalam membantu pemahaman materi. Dengan demikian, aplikasi pembelajaran ini cocok digunakan sebagai sarana penunjang pembelajaran bahasa Sunda dan berpotensi meningkatkan literasi bahasa daerah di masyarakat.

Kata kunci: Aplikasi Pembelajaran; Bahasa Sunda; Android; MDLC

INTRODUCTION

Language has an important role in human life because it is the main means of communication. As a means of communication, language includes words, sets of words, clauses and sentences expressed orally or in writing. In addition, in human life, language is also closely related to cultural development. Language can show the cultural symbol of a nation. The role of language in the era of globalization is increasingly developing into the exchange of information, culture, technology and other scientific fields. Indonesia has a variety of tribes that produce various regional languages that are cultural heritage and need to be preserved through efforts to know, learn, and use them in daily life. Sundanese is a language created and used by Sundanese people in various communication purposes of their lives. It is not known when this language was born, but from the written evidence that is the oldest description, in the form of an inscription it dates back to the 14th century. The diversity in Indonesia, which has given birth to many traditional languages, including Sundanese which has been used for centuries, shows how important it is to preserve regional languages as part of the nation's cultural identity. Through efforts to know, learn, and use it in daily life, this cultural heritage can be maintained and continue to live in the midst of the development of the times. [1] [7]
Based on news articles on republika.com websites in West Java, only 40% of children know and are able to use Sundanese. On the other hand, smartphone users [2] are increasing. Based on a survey released on an article on statista.com site, *smartphone*

users in 2021 reached 72%. Smartphone users engage in a variety of activities such as playing games, social media, and studying, but a Similarweb survey shows that the most widely used app is social media[4]. Most people spend hours on social media and very little to learn, so an easily accessible regional language learning app can help increase the interest of the younger generation. [3]

Previous research has been done on language recognition applications conducted by Hilman Septian, Eka Wahyu Hidayat, Alam Rahmatullah with the title Arabic and English Language Recognition Application for Android-based children whose research results have suggestions, one of which is to be able to voice language material Related research was also carried out by Budi Usmanto, M.T.I, Teuku Muhammad Fawa'ti H.S, Desto Prani Brajannoto, M.Pd with the title Android-based English Introduction Application for Early Childhood whose research results have suggestions, one of which can be given [1]. *a quiz* using *a timer* [5] . Related research was also conducted by Gugun Irwansyah with the title of Android-based Sundanese Language Introduction Application for Elementary School Children (SD) whose research results have suggestions, one of which is the addition of materials to be more complete and suitable to meet the needs of students, such as the addition of more layered materials so that they can be used by all groups. [6]

METHODOLOGY

In this study, a quantitative approach was used with data collection techniques in the form of literature studies and interviews with resource persons of one of the Sundanese language teachers who taught in one of the schools in Tasikmalaya. The data collected will go through three stages; 1) Data examination, to obtain data that is appropriate or related to the topic being studied, 2) Classification to group data, 3) Verification to re-examine the data that has been collected Multimedia Development Life Cycle (MDLC) design method. This method is a Luther-Sutopo version of multimedia development method. In the MDLC method, there are 6 stages which can be seen in figure 1.

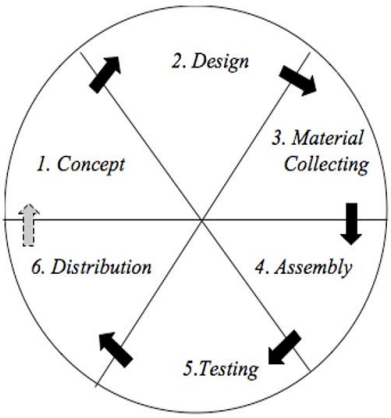


Figure 1. MDLC Luther-Sutopo

The application development method used is the Multimedia Development Life Cycle (MDLC), which consists of six stages, namely Concept to determine the purpose of the application and user needs, Design to create storyboards, layouts, Material Collecting modeling using UML to collect images, icons, and Sundanese language materials, Assembly to develop applications using Smart Apps Creator, Testing to test blackbox and usability, Distribution distributes applications in .apk format

The object of the study was 30 respondents aged 8–18 years. At the concept stage, the purpose of the application as a Sundanese language learning medium is determined. The design stage creates a storyboard and UML diagram to illustrate the application's workflow. The material collection stage includes taking the required materials, images, and icons. The assembly stage is carried out by arranging all elements into an application using Smart Apps Creator. The test was carried out using the blackbox method to ensure that the application function runs as expected, as well as a usability test using the Likert scale to assess the feasibility of the application from the user's point of view Data analysis was carried out descriptively using a frequency distribution table and average calculation based on the Likert scale, while the observed object was the people of Tasikmalaya with a sample determined through the quota sampling technique.

System Planning

Use case Diagram

The use case diagram in Figure 2 is a representation of the interaction between the user and the system.

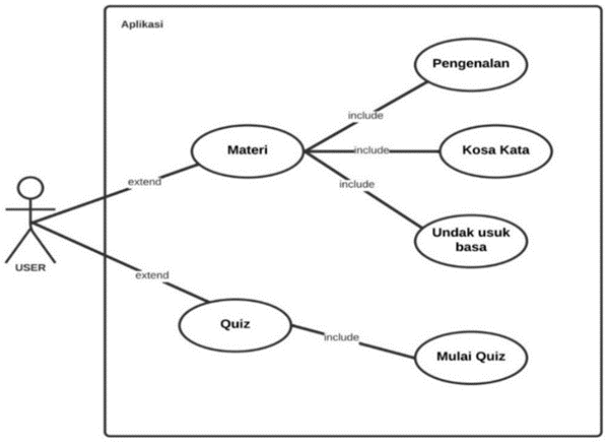


Figure 2. *Use Case Diagram*

Activity Diagram

The activity diagram in figure 3 is a visual of the workflow of activities and processes that occur on the system.

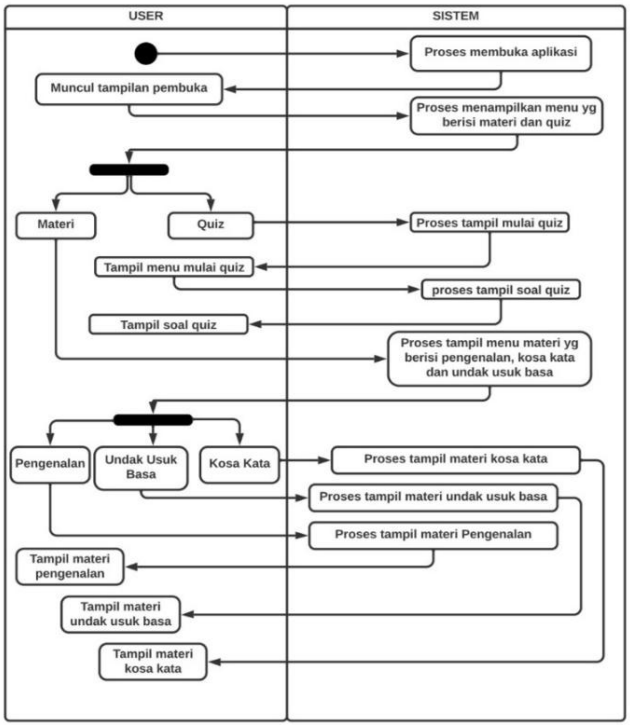


Figure 3. *Activity Diagram*

Sequence Diagram

Figure 4 is a sequence diagram that shows messages or commands of interaction between objects.

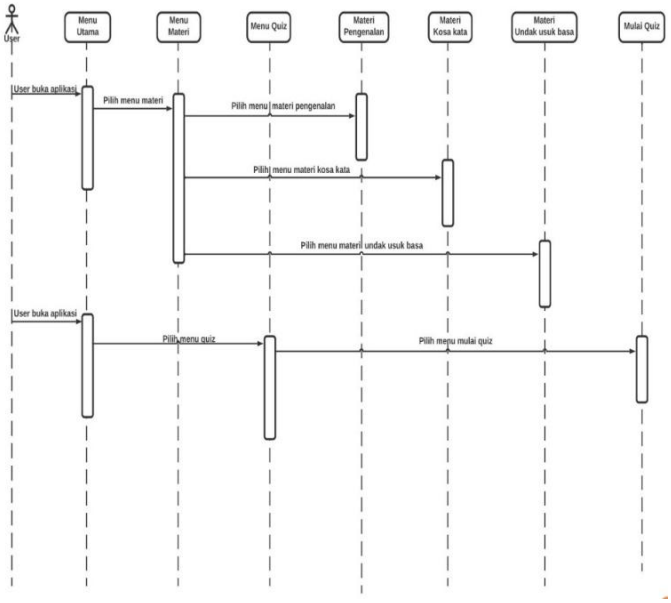


Figure 4. *Sequence Diagram*

Concept

The concept of the built application can be seen from table 1

Table 1 Application Concept Table

Heading	Sundanese language introduction learning application.
User	Starting from the age of 8 years and above, or can already read and use *a mobile phone*.
Duration of use	Not restricted.
Picture	The image format and icon used are png
Interactivity	Draw *an icon* as a button to move from one *scene* to another. The back navigation button is used to return to the navigation menu, the next navigation button is used to proceed to the next page, the up navigation button is used to Return to the main menu/start menu.

Design

The design results will be explained with a short *storyboard* in table 2

Table 2 Brief Storyboard Table

Scene 1	It is the opening *scene*.
Scene 2	It is the main *menu scene* that contains *a* selection of *scenes, material scenes, and quiz scenes*.
Scene 3	*Scene* menu material containing introduction , vocabulary and language levels.
Scene 4	*Scene* menu quiz containing *the* starting scene of the quiz
Scene 5	*Introduction scenes* containing numbers, alphabet and self-introduction material.
Scene 6	*Scene* vocabulary containing eu,e, é, é. And everyday Sundanese vocabulary.

Scene 7	*A* language essay that contains the basics of everyday language and vocabulary.
Scene 8	*The scene* starts with *a quiz* that contains quiz questions.

Material Collecting

Application materials are collected from the internet, including icons from flaticon.com, background images from Pinterest, as well as materials obtained from online articles and interviews with a Sundanese language teacher in Tasikmalaya

RESULTS AND DISCUSSION

The appearance of the results of the android application and the process that must be done in running this application until it is completed. Here's what the application looks like:

Gambar 5 Tampilan pembuka

Gambar 6 Menu Utama

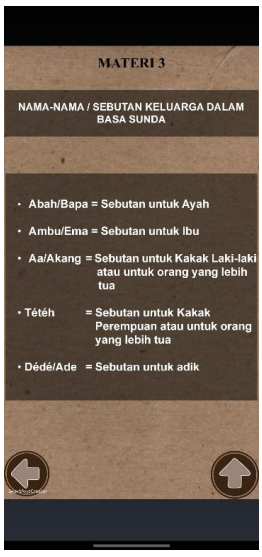
Gambar 7 Menu materi

Gambar 8 Menu Quiz

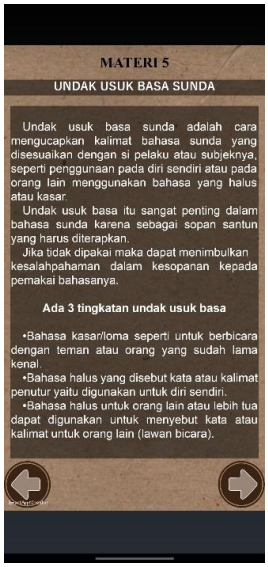
Gambar 9 Materi angka

Gambar 10 Materi Sapaan

Gambar 11 Materi Perkenalan diri



Gambar 12 Materi sebutan keluarga

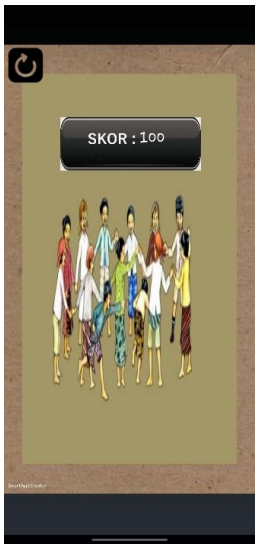


Gambar 13 Materi undak usuk basa

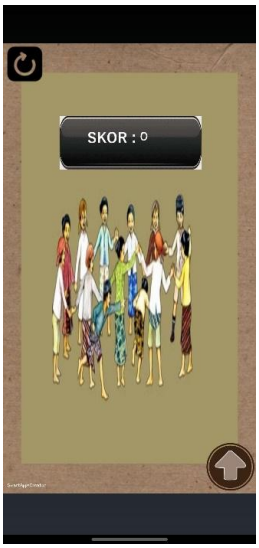
Gambar 14 Materi kosa kata undak usuk basa

Gambar 15 Jawaban benar

Gambar 16 Jawaban Salah



Gambar 18 Nilai skor



Gambar 19 Skor Ketika direset

Testing

Application testing is carried out through two stages, namely blackbox testing and usability testing. Blackbox testing aims to ensure that every function on the application runs according to design. Based on the test results, all navigation buttons such as the Material, Quiz, Next, Back, and Home buttons work properly without any errors. The scoring mechanism on the quiz menu has also gone according to plan, where each correct answer gets a score of 20 points and the final result is displayed automatically. No malfunctions were found during the testing process, so the application was declared to have met the functionality aspects.

CONCLUSIONS AND SUGGESTIONS

Based on the results of the design, implementation, and testing that have been carried out, it can be concluded that the Android-based Sundanese language recognition learning application has been successfully developed and can run well in accordance with the research objectives. This application is able to provide basic Sundanese language materials and evaluations in the form of quizzes that are easily accessible to users. The results of the blackbox test showed that all the functions of the application were working correctly without any errors. Meanwhile, usability testing of 30 respondents yielded an average score of 85.5%, which puts the app in the category of very feasible. In addition, the average score of the quiz of 96 indicates that the app is effective in helping users understand the material presented. Thus, this application can be an alternative learning media that is interesting, easy to use, and has the potential to support the preservation of the Sundanese language among the community.

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