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Design of Basic English Grammar Learning Media System with Application-Based Blended Learning Method (Startup)

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Abstract

English is an international language that is currently most often used in various aspects ranging from aspects of industry to aspects of education, workers to students. But not all individuals from these circles can master English well, due to lack of willingness to learn to learning media that are easy to understand and use. English learning is divided into several levels, namely Basic, Middle, to Expert (conversation). The most frequent mistakes in learning English are at the initial level, namely the basic level, this level discusses grammar, not everyone can use grammar properly, especially among students. Grammar is very important to learn and master, because it will often be used when making assignments in English or if students want to continue their level of education in foreign universities. From this problem there are also limitations to the existing learning media in the education community, for example, at this time still often used the method of learning in the past (conventional), namely face-to-face learning conducted by teachers / lecturers to students / students. Along with advances in technology, some teaching staff have begun to adapt to the future of learning media, namely computer-based learning media (online) which is often called E-Learning, this learning media can be done anywhere, anytime, and anyone. Of the two learning methods there are currently many shortcomings, if a teacher only focuses on one method, the learning objectives will be difficult to achieve. Therefore, at present the merger of the two methods is often referred to as the Blended Learning method. The development of information and communication technology that requires innovation and transformation in learning. Learning media innovation with Blended Learning method which is often also referred to as a hybrid course (combination of learning), can be implemented into an application-based system that will facilitate users in learning Basic English Grammar. The purpose of this research is to make it easier for students to master English, especially in Basic English Grammar with Blended Learning methods using an application-based system (startup) that can be run anywhere, anytime, and by anyone through an Android-based smartphone. In this application system Blended Learning methods are applied which can later be accessed by teachers / lecturers to students / students. In this application system implementation will facilitate the way of learning of students in learning Basic English Grammar consisting of adverbs, tenses, modals, conditionals, to gerunds and infinitives, by directly contacting the teacher who uses the application to explain the material that is not yet understood to work on the exercise questions in it. The results of this study are Application-based Systems (startup), and will be published in national / international journals, accredited or not accredited as the outcomes to be achieved from this research.

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Key Words: *Blended Learning, Basic English Grammar, Application System, Startup*

1. Introduction

English is an international language that we must now master, in all fields ranging from industry to education. However, not all individuals master English, this is due to the laziness of each individual, the learning methods applied by the teacher / lecturer during the learning period to the lack of learning media that are easy to understand and use. Learning English can be divided into several levels, namely the basic level (basic), intermediate (middle), to the level of experts (expert / conversation). The most basic mistake in learning English is at the basic level, this level is used to discuss grammar. Not everyone who speaks English can understand grammar well. There are many discussions in Grammar, among others, adverbs, tenses, modals, conditionals, to gerund & infinitive. The advancement of communication systems and information technology in the present, has an impact on changes in many systems, one of which is the learning approach system. Thus, it requires transformation and innovation in previous learning methods (conventional), with the teacher / lecturer as the main role holder and the classroom as the place of implementation which has now changed a lot. The learning approach system has changed in the direction of future learning which can also be referred to as the knowledge age learning. This system makes people able to study anywhere without limits of time and place and with anyone. This is a characteristic of future learning by having many models, including the Blended Learning model which is also called the hybrid course by combining direct learning methods or face-to-face and computer-based learning which is also known as E-Learning. Currently the application-based system (startup) is excellent in various fields, both in the field of industry and in the field of education.

The application system is a platform that will be used in Blended Learning methods. Based on the five discussions of grammar above, therefore **the Basic English Grammar Learning Media System Design with Application-Based Blended Learning Method (Startup)** was made. This system will help in learning Basic English Grammar.

1.1 Goal

The aim of this research is to make it easier for students to master English, especially in Basic English Grammar with Blended Learning methods using an application-based system (startup) as a media that can be run anywhere, anytime, and by anyone through a smartphone Android based. The specific objectives of this study can be seen from the analysis as follows:

- a. Describe a description of how the Blended Learning method works.
- b. Analyzing how learning is done with Blended Learning methods based on application systems (startup).
- c. To measure the level of difficulty learning basic English grammar.
- d. To find out how teachers use blended learning methods that are implemented into the application system (startup).

1.2 The Significance of the Study

Based on the background of the problem and this specific purpose, the urgency of this research is known, namely:

- a. As a tool for learning methods blended learning that combines conventional learning models / face to face with a computerized model (online / offline).
- b. To help the teaching staff, namely the teacher / lecturer in conducting learning while blended learning by incorporating subject matter to the task of training into the system
- c. As a contribution for writers in the blended learning process.

2. LITERATURE REVIEW

2.1 Grammar

English is the language of instruction used as the language of international communication. At present the mobility of the world community is very high in various aspects of life so that it requires English to communicate freely [1]. Grammar or rule in English as a combination of words arranged or changed to show several types of meanings [2]. The meaning of Grammar is a reference mechanism based on the function of language when used in communication with others. Grammar is also often referred to as a rule for combining words, combining sounds from a meaning [3].

2.2 Blended Learning

This method of learning combining old methods (conventional) with computer-based methods (online) is also referred to as the Blended Learning method is one form of information technology in the world of education that can be used as an effective learning medium and very helpful for teaching staff and students. In the Blended Learning method requires teachers to develop cognitive potential of students (students) through a meaningful learning process [4]. Teaching and learning activities will be very useful if a lot is done by involving students / students directly, especially for primary level education. But for students at the higher education level it will be more effective by using explanations, demonstrations, concept maps, diagrams, illustrations and others. Blended Learning can also be called a combination of many technologies, namely multimedia, video streaming, virtual classes, e-mail, and teleconference, so Blended Learning is the right solution in the teaching and learning process at this time, not only according to needs, and style current student learning [5]

2.3 Application System

The system is divided into two groups of approaches. The approach in emphasis on procedures is an appropriate sequence in carrying out instructions based on the stages that explain what must be done, when it is done and how to do it, while the approach to the elements is the system as a component or a variable that is organized, interact with each other, dependence on each other and integrated. From the two approaches can be defined that the system is a network of interrelated procedures, gathered together to complete a particular goal [6]. A computer system is an interrelated element in receiving input data to be processed in order to solve a problem using a computer application [7]. A group of attributes consisting of several forms, reports and compiled in such a way that they can access data, and contain commands for data processing are Applications [8]. Based on the above understanding, the application in general can also be interpreted as a process from a manual that is transformed into a computerized system or program so that data is processed to be more optimally efficient [9].

2.4 Software engineering

In general, the definition of Software Engineering is a discipline that applies basic theory in a particular field into a software that is used as a tool for problem solving, producing software that is free from errors in the delivery of the budget and on time, and the decision making process [10]

2.5 Android

Android is an operating system for Linux-based mobile devices that includes an operating system, middleware and applications. Android provides an open platform for developers to create their applications. Android is a new generation of mobile platforms, platforms that provide developers with the development they expect. The operating system that underlies Android is licensed under GNU, General Public License Version 2 (GPLv2), which is often known as the "copyleft" license where every third-party improvement must continue to fall under the terms. Android is distributed under the Apache Software License (ASL / Apache2), which allows for the second distribution and so on. Commercialization of developers (handset manufacturers in particular) can choose to improve the platform without having to give their improvements to the open source community. Instead, developers can benefit from enhancements such as repairs and redistribution of their work under whatever license they wish. Android application developers are allowed to distribute their applications under whatever licensing scheme they wish.

3. METHODOLOGY

3.1 Design Development Planning Learning Model

The research design in learning planning refers to the blended learning model with a constructive approach. The research flow of planning the learning model is illustrated in the following figure 3.1.

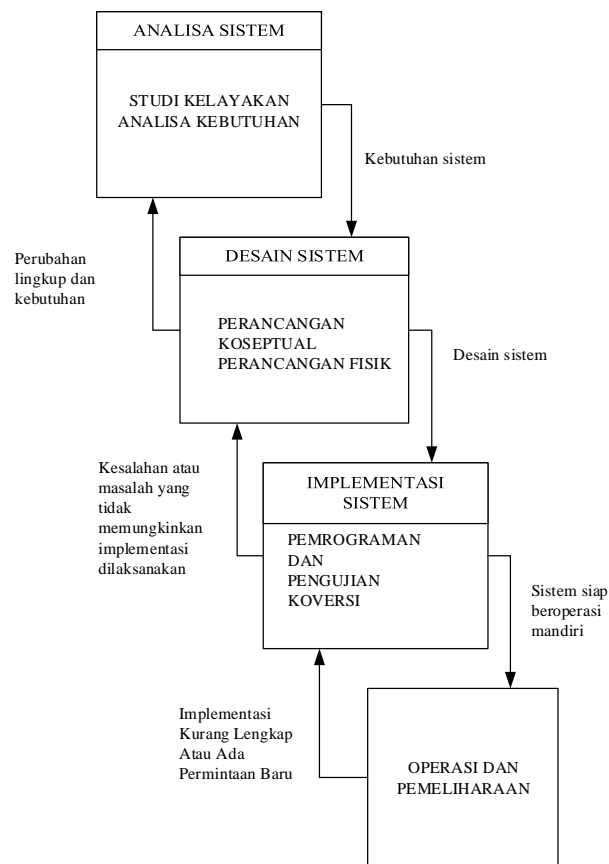


Figure 3.1 Research Steps

3.2 Needs Analysis

To meet the needs analysis of researchers using several methods including:

a. Observation

a method of gathering information by direct observation and observation of research objects. This observation was carried out on:

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- b. Interviews were conducted directly with the MA. Daruttaqwa about how the learning system that is being used at the MA. Daruttaqwa so that researchers can find out the advantages and disadvantages of the application as a reference for applications that will be made later.

3.3 Application Design

At this stage before making application programs, researchers design applications using UML (Unified Modeling system) which includes use case diagrams, class diagrams, sequence diagrams, activity diagrams and deployment diagrams. Aiming to describe the workflow of a system that researchers created, then an interface design overview about the Learning Media System using Application-based blended learning methods in this case the authors designed an Android application (E-learning)

3.3.1 Use case diagram

Use case diagrams are application workflows that tell about the design process so that applications to be made can be as expected. Use cases work by describing the type of interaction between the user of a system and the system itself through a story of how a system is used. Below is a description of the Use case diagram design of the application the researcher made:

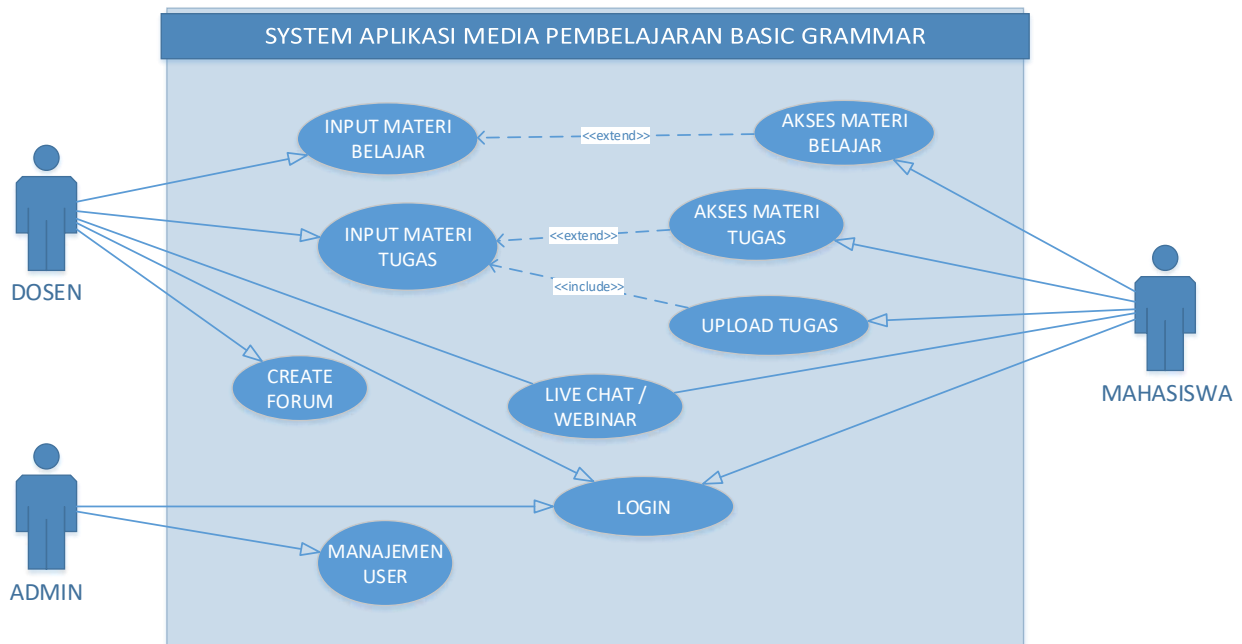


Figure 3.2 Use Case Diagram

3.3 Implementation / Results

At this stage explain the steps of implementing the application that has been designed. Implementation of the application is the manufacturing stages that refer to the application design in the previous chapter. It takes some hardware and software to support the process of making this application. For more details, the requirements needed are explained as follows:

1. Hardware Need:
 - a. Processor Core i5 (Desktop) / Quad Core (Mobile)
 - b. RAM 4 GB
 - c. HDD 15 GB / ROM 4GB
2. Software Need:
 - a. Android 4.0 + Operating System (Ice Cream Sandwich for minimum requirements)
 - b. Android smartphone functions to install and run applications
 - c. The browser application (google chrome) functions to display the web backend.
 - d. Internet connection functions to connect applications to the web backend.

At this stage a test is generated so that it can explain the sequence of the running of the application that has been designed. Testing the application of android-based learning media (E-learning) in Polytechnic LP3I Medan:

- a. The first step is to run the application.
- b. Access the main menu page.
- c. Access the lesson page.
- d. Access material and assignment pages.
- e. Access the task collection page.
- f. Access the forum page

4. Application Design

The writer makes this android-based application, using ionic software and Android Studio, here are some application designs that will be used in teaching Basic Grammar on this application system.

Discussion

1. Start Display

a. Main Menu Display

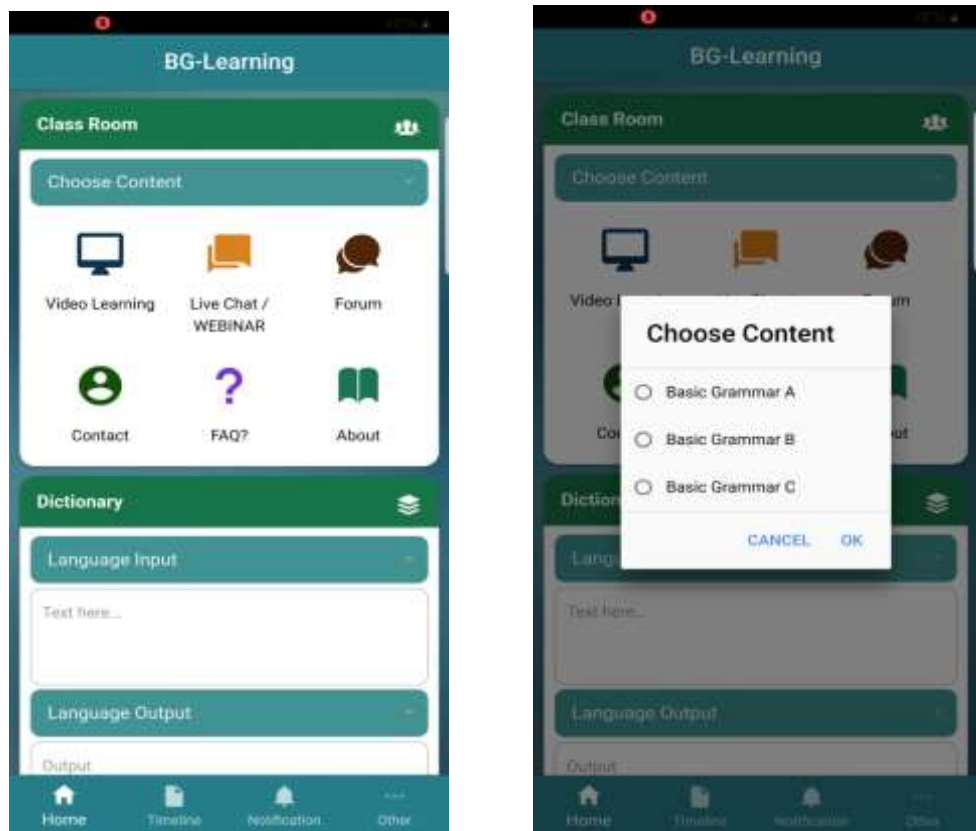


Figure 4.1 Main Menu Basic Grammar Application

The main menu of this basic grammar application displays several menus that can be used, including video learning, live chat / webinars, forums, contacts, FAQs, and Menu About (about) this application. In the top menu there is a choice to choose content, to find out the basic grammar content to be learned by the user.

b. Dictionary Menu

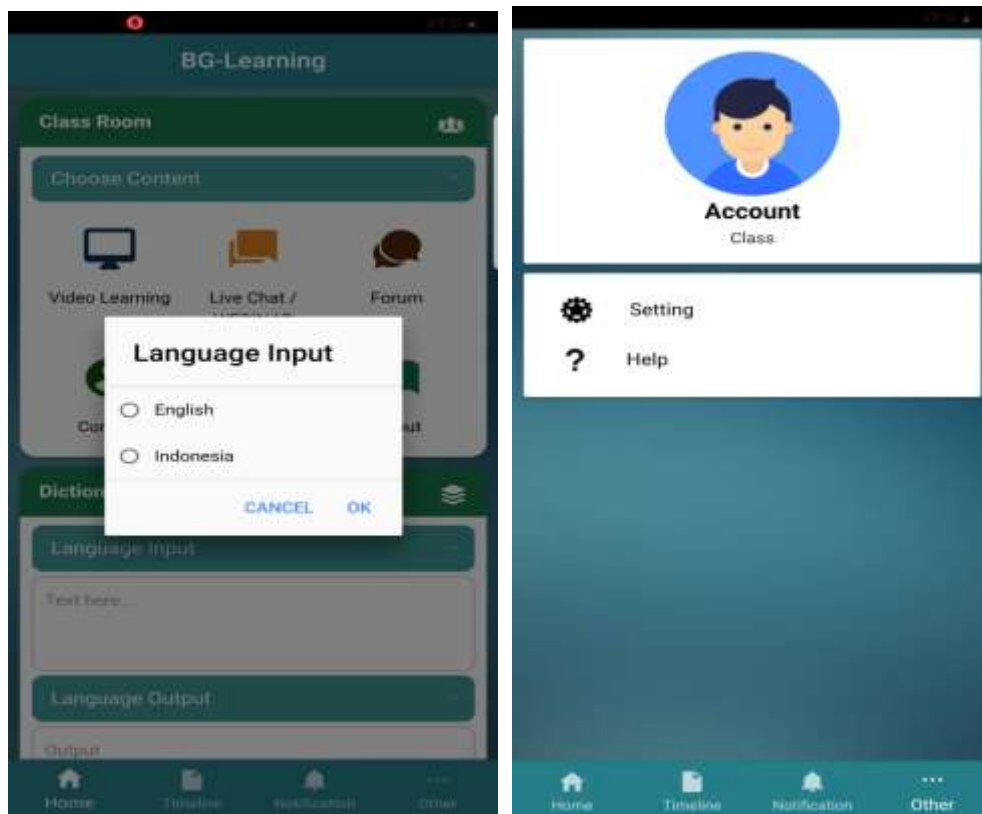


Figure 4.2 Dictionary Menu and Others

The dictionary menu on the main page, serves to help the user if you want to know the meaning of the words used in the basic grammar material that is in the application, and the other pages function as user account settings.

5. Conclusion

Based on research that has been done by the writer from the results of interviews, observations and collection of existing data and described previously, it is concluded that with the application-based learning media about basic grammar is very helpful learning systems with blended learning methods that are among universities, in this case the authors conducted research in the Politics LP3I Medan. Students as users of this application are greatly helped by this application, because they have experienced difficulties in understanding basic grammar in English courses, with a combination of blended learning methods that the writers use in this application is also very helpful for the work of English language lecturers in delivering their lecture material, besides they will also hold face to face in accordance with the lecture schedule, they can also include learning material in the application in the form of theory and learning videos as practice material.

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