

Learning Tenses With Multimedia For Junior High School Students

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Abstract— Communication is a process of interaction carried out by two or many people using language devices, which aim to interact with each other and get useful information for that person. Language is an intermediary medium in communicating directly or indirectly, so that the information conveyed can be accepted and understood by the recipient. There are many languages around the world, with each country having a variety of languages. In the international world it has been agreed that English is recognized as an international language for people who have different mother tongues, where English is used when communicating in business, political and educational matters between different countries. English is one of the subjects taught at various levels of schools in Indonesia, especially at the junior high school level. In this study, a multimedia application will be built for learning English using the MDLC (Multimedia Development Life Cycle) method. The result of this research is a multimedia application for learning English tenses at the junior high school level using the android mobile application technology.

Keywords—Multimedia, Tenses, Multimedia-Based Learning, Android Applications, Junior High Schools, MDLC

I. INTRODUCTION

Interaction between two people or several humans using a tool called language, where the purpose of communication is to interact and exchange information. With this communication, someone will understand the purpose and purpose of the information conveyed by others. The direct communication media that acts as an intermediary for conveying information is language. Each country has its own language as a means of interacting and communicating with each other, even in a country there are various kinds of regional languages which are the means of communication in that area. Language as an intermediary medium in communication is used to interact between them in a country, which is usually referred to as the national language or different countries. or what is called an international language. In international agreements, English is the language used as an international language to communicate with one another with different national origins and languages.

English language provision in education has started from elementary level in elementary school, middle level in junior high and high school, even to higher education at universities. At each level of education, when studying English subjects, they have different materials according to the previously prepared learning design. Of course this also affects the level

of difficulty at each level of education. Many students have difficulty learning English let alone understanding it, this is because English lessons have sentence patterns and sentence structures that when used adjust to time. Another problem is that English also uses different verbs which must be adjusted according to the time it occurs. Unlike Indonesian where the usage does not depend on the time of the incident, so is the verb. Between Indonesian and English, they have the same structure but the level of difficulty is more complicated when using English. This is what causes some students to find it difficult and confused to absorb English material., especially at the junior high school level. Material that is accepted only in school is one of the problems of how English lessons are very difficult to understand. For that we need another medium that can be used to learn English learning materials that have been obtained in school.

To deal with these problems, in this study an interactive multimedia design and application was built to support understanding of English at the junior high school level. This application was built to assist students in learning and understanding how sentence patterns and structures in English. Supported by multimedia technology, it will stimulate students to be more interested in learning English lessons. This application will be equipped with audio, video animation and buttons that can assist students in learning the material to be studied so as to help students learn the material presented [1].

The result of this research is a multimedia application of learning English for learning tenses using mobile application technology with the Android operating system aimed at students at the junior high school level.

II. LITERATURE REVIEW

A. State Of The Art

In a study published by Sandy Kosasih in the journal Eksplorasi Informatika Vol 4 No1 (2014), a study was conducted which resulted in a multimedia application for learning basic Mandarin language. In this application, there is a combination of audio, video, text, images and animation to make it easier to learn basic Mandarin language independently or individually. In this application there is also an evaluation process in the form of practice questions in the form of a game. This application was developed using the prototype method and the results obtained are that this application has met the needs of users to learn basic level Chinese [2].

In a study published by I Gusti Made Murjana in the Journal of Systems and Informatics Vol 12 No. 1 (2017), an interactive multimedia study of physics learning quantities and flash-based units has been produced. This research produces a multimedia application that is built using flash. This application is focused on learning physics on the topic of quantities and units, where this application provides audio, text, video, and animation that can be used by users to learn physics lessons in schools. This application was built using the Multimedia Development Life Cycle (MDLC) method. and before being distributed to users, it has gone through a trial phase using the black box testing method [3].

Research with the title of multimedia-based network security learning applications published by I Gusti Made Trisnayoga, M. Rusli, and I Wayan Ardi Yasa in the Journal of Systems and Informatics Vol 9 No. 1 (2017), has produced a study on multimedia learning for network subjects. Flash-based and animated security. In this research, the building technology used is flash, and there are several features of audio, video animation, text, and quizzes. The results of this study produce a conclusion that this application can help become a solution for students to learn independently [4].

Research with the topic of multimedia Indonesian language learning for animation-based students, published by Agus Purwano in the Journal of Systems and Informatics Vol 11 No. 1 (2016). In this study, it is stated that a multimedia learning application for Indonesian language courses has been produced using Macromedia Flash and Lectora developer technology. In this study emphasizes how to build a multimedia learning application based on animation to help the learning process of Indonesian language courses [5].

Research on the topic of implementing the Delphi model in the development of interactive multimedia on the introduction of tourist objects in Banyuwangi district made by Muhammad Rusli, Khoirul Anam, and Dian Rahmani and published in the Journal of Systems and Informatics Vol 14 No.1 (2019) which produced a study to introduce and promote tourist objects in Banyuwangi district with interactive multimedia. This application is made based on android and uses the Delphi method in its development. The results of this study are the implementation of interactive multimedia applications for Banyuwangi district by using the Android mobile application [6].

In the research made by Joko Santoso with the topic of usability user experience learning media for the Android-based kolok bengkala dictionary published in the journal System and Informatics Vol 12 No.2 (2018). In this research aims to test the usability of the Android-based kolok Bengkala dictionary learning media application. The application developed with Unity3D contains kolok Bengkala sign language vocabulary which is displayed by a 3D object. The task performance is measured using Post-Task Study testing with the Single Ease Question (SEQ) method. Usability performance was measured using a post study test with the System Usability Scale (SUS) method. The test results show that the design made has a high level of acceptability [7].

B. English Grammar

Grammar is a sentence structure structure. Sthis structure is used in all languages, not only in English, in Indonesian grammar is known as SPOK (Subject, Predicate, Object, Description). Can be concluded The definition of

grammar is the rules in word structure that make sentences perfect in English pronunciation and grammar. Grammar is an important aspect of learning English and cannot be ignored [8]. Grammar of a language is an analysis of the various functions performed by words in that language [9].

C. Tenses

Tenses are a form of verb in English that shows the time when an activity, event, or event occurs currently, in the past, or in the past. Tenses have a very close relationship with the timing of an occurrence of the past, the present and the future [10].

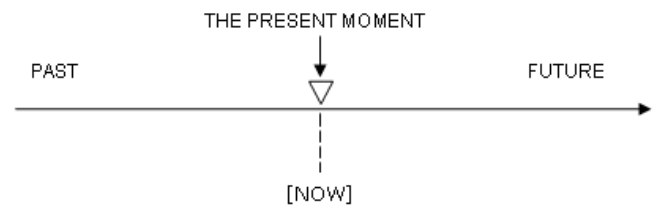


Fig 1. Referential Level

Fig. 1 shows the translation of 'past', 'present', and 'future' at a level that has clues. Present which is defined as something inclusive compared to something exclusive. Something can be said to be 'present' if it has an existence in the present. Consider the possibility that their existence may also be part of the 'past' and 'future'. Therefore Paris stands on the River Seine might correctly say to describe a 'present' statement of events, even though this event statement has also been obtained centuries ago in the past, and may exist for an uncertain period in the future [11].

The sentence structure in English is divided into 2 parts, namely 'past' and 'present'. Simple past tense has another sentence structure, namely the past continuous tense, while the simple present tense has 2 other sentence structures, namely the present continuous tense and the future tense. The following is an explanation of the tenses that will be used in making this interactive multimedia application [12].

a. Simple Present Tense

Used when an event is taking place at this time or an event that occurs repeatedly (habit). Adverbs of time that can be used include sometimes, always, often, rarely, never, usually and so on, and this tense is the tense most often used in English. The following is a sentence structure and an example of using the simple present tense.

1. The Simple Present Tense has 2 types of positive sentence structure patterns:
 - a. Positive sentence pattern with TO BE (am / is / are):
Subject + TO BE + Adj / Noun / Adv of Places
 - *She is a nurse.*
 - b. Positive sentence patterns with basic verbs (Verb1):
Subject + Verb 1 + (s / es)
 - *We go to mosque every day.*
 - *He goes to office by train every day.*
2. The Simple Present Tense has 2 types of patterns: negative sentence structures
 - a. Negative sentence pattern with TO BE:
Subject + TO BE + Not + Adj / Noun / adv of Places
 - *They are not soldiers.*
 - b. Negative sentence pattern with basic verb verb 1:

Subject + Do Not (Don't) / Does Not (Doesn't) + Verb 1

- *She doesn't go to the hospital every Friday.*

3. The Simple Present Tense with Verb 1 has a question sentence structure

Do / Does + Subject + Verb 1?

- *Do we go to camp every Thursday?*

Am / is / Are + Subject + Adj / Noun / Adv of Place?

- *Are you in Bali every holiday?*

b. Simple Past Tense

This tense is usually used to express an event or action that occurred at a certain time in the past.

1. The positive sentence structure in the Simple Past Tense has 2 types of patterns:

a. Positive sentence patterns with TO BE (was, were):

Subject + Were / Was + Adj / Noun / Adv of Places

- *They were happy this morning.*

b. Positive sentence patterns with past verbs:

Subject + Past Participle Verb

- *We went to the game last week.*

2. The negative sentence structure in the Simple Past Tense has 2 types of patterns:

a. Negative sentence pattern with TO BE (was, were).

Subject + TO BE + Not + Adj / Noun / Adv of Places

- *She was not at library a few hours ago.*

b. Negative sentence pattern with Verb 2.

Subject + Did Not / Didn't + Verb 1

- *We didn't watch the film last night.*

3. Interrogative sentence structure in the Simple Past Tense.

Did + Subject + Verb 1?

- *Did we go to the airport last month?*

Was / were + Subject + Adj / Noun / Adv of Places?

- *Were you in Lombok last month?*

c. Present Continuous Tense

Used to state an event that is taking place while speaking, usually used to express an action that is ongoing in a certain period in the present time, even though when speaking the action is not being done. The following is the sentence structure of using the present continuous tense.

1. The Present Continuous Tense has a type of positive sentence structure pattern.

Subject + Am / Is / Are + Verb ing

- *I am watching TV at home.*

2. The Present Continuous Tense has a type of negative sentence structure pattern.

Subject + Am / Is / Are + Not + Verb ing

- *We are not eating dinner now.*

3. Interrogative sentence structure in the Present Continuous Tense:

Am / Is / Are + Subject + Verb ing?

- *Are you singing?*

d. Past Continuous Tense

It is a tense used to state that an action is taking place during a certain time in the past (past).

1. The positive sentence structure in Past Continuous Tense has the following types of patterns:

Subject + Were / Was + Verb ing

- *We were drinking milk at 7 o'clock yesterday.*

2. The negative sentence structure in the Past Continuous Tense has the following types of patterns:

Subject + Were / Was + Not + Verb ing

- *They were not drinking milk at 7 o'clock yesterday.*

3. Interrogative sentence structure in the Past Continuous Tense:

Was / Were + Subject + Verb ing?

- *Were we going to the game yesterday?*

e. Future Tense

Used to express an action that will be done in the future.

1. The positive sentence structure in the Future Tense has the following types of patterns:

Subject + Will / Shall + Verb 1

- *I will watch to the cinema tomorrow.*

2. The negative sentence structure in Future Tense has the following types of patterns:

Subject + Will / Shall + Not + Verb 1

- *I shall not (shan't) meet him tomorrow.*

3. Interrogative sentence structure in Future Tense with Verb 1:

Will / Shall + Subject + Verb 1?

- *Shall I meet him tomorrow?*

D. Multimedia

Multimedia is a combination of computers and video or generally a combination of three elements, namely sound, images, and text or a combination of at least two media inputs or outputs of data in the form of audio (sound and music) [13].

Multimedia comes from the word multi and media. Multi means a lot and media means intermediary. Multimedia can be defined as a combination of text, images or photos, animation, video, or audio that is conveyed via computers or other electronic and digital manipulation equipment [14]. In addition, the term multimedia can also be defined as a diverse collection of technologies that combine visual (sight) and audio (hearing) media in new or modern ways for communication purposes [15].

Multimedia can also be said to be a technology that combines various media sources including text, graphics, sound, animation, video and so on which are conveyed and controlled by an interactive computer system. The media is displayed on a computer, where users can see, hear and interact with each other and also control the appearance of the media. A multimedia product must have a relationship that allows the user to move from one interface to another [16].

From the previous explanation it can be concluded that multimedia is a combination of several media including text, sound, sound, and images, where all these media are made into a single unit so as to form a multimedia that is able to provide an attractive display technology [17]:

1. Interactive Multimedia

Interactive multimedia is a media that consists of many integrated components / media that are able to interact with its users.

2. Hyperactive Multimedia

This type of multimedia has a structure with related elements that can be directed by the user via a link with existing multimedia elements. Example: world wide web, website, mobile banking, online games, and others.

3. Linear / Sequential Multimedia

Linear Multimedia is a type of multimedia that goes straight. Linear multimedia takes place without navigation control from the user. Linear multimedia presentations must be sequential or sequential from start to finish. Example: Movie / film, e-book, music, TV broadcast.

4. Multimedia Learning Presentation

Multimedia learning presentations are teacher aids in the learning process in the classroom and do not replace the teacher as a whole. For example: Microsoft Power Point.

5. Independent Learning Multimedia

Independent learning multimedia is learning software that can be used by students independently without teacher assistance.

6. Multimedia Kits

Multimedia kits are collections of teaching, learning materials that involve more than one type of media and are organized around a single topic, which includes: CD-ROMs, slides, audio tapes, still images, printed studies, overhead transparency.

7. Hypermedia

Is an extension of hypertext that allows images, movies, and flash animation to be linked with other content. The most common type of hypermedia is an image link. Photos or images on the web that are often linked to other pages. For example, clicking a thumbnail of a thumbnail can open a larger version of the image in a new window.

8. Interactive Media

This system is a learning delivery system that recorded visual, sound, and video material presented under computer control for viewers who not only see and hear images and sound but also make active responses. The advantage is that several text, audio, graphic, still image, and all motion picture media can be combined in one easy-to-use system [18].

III. RESEARCH METHODS

Interactive multimedia designed will use Luther's multimedia development method, where there are 6 stages carried out including concept, design, material gathering, program creation, program testing, and program distribution [18], which is shown in Fig. 1.

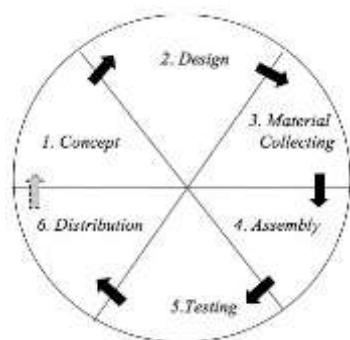


Fig 2. Multimedia Development Life Cycle

IV. RESEARCH RESULTS AND DISCUSSION

1) Concept

The concept stage determines the objectives and analyzes the theme or topic, as well as the application users to be

made, [18]. The concept of making this application can be seen in Table 1.

TABLE I. DESCRIPTION OF INTERACTIVE MULTIMEDIA CONCEPT

TITLE	MOBILE-BASED INTERACTIVE MEDIA APPLICATIONS FOR JUNIOR HIGH SCHOOL TENSES LEARNING
THE PURPOSE OF MAKING APPLICATIONS	HELPING STUDENTS TO SIMPLIFY UNDERSTANDING AND MORE INTERESTED IN LEARNING ENGLISH, ESPECIALLY REGARDING SENTENCE STRUCTURE
USER	JUNIOR HIGH SCHOOL STUDENTS
FIGURE	IMAGES RELATED TO THE EXPLANATION OF TENSES

2) Design

At this stage the design will use 5 design methods, namely multimedia-based design, navigation structure design, use case diagrams, class diagrams, and sequence diagrams. The following is an explanation of each design:

a. Multimedia Based Design

The multimedia-based method in the form of a storyboard is a visual test that is first of all the idea where as a whole it can be seen what can be presented. For multimedia production staff, storyboards are a guideline for the flow of work to be done. For sponsors, the storyboard is a picture of multimedia that will be produced. Contributions generated from this stage include producing a display sketch, and a navigation structure as options [18]. Table 2 describes the storyboarding of this interactive media application.

TABLE II. INTERACTIVE MULTIMEDIA DISPLAY INTERFACE STORYBOARD

Scene	Visual	Link
1	Display sketch for the Splash Screen, containing the logo button from the application that serves to go to the home page	Scene 2
2	Display sketch for the Home menu. Contains a narrative to start learning and the main buttons of the application	Scene 3,14,18,19
3	Display sketch for the Lesson menu, contains the material tenses buttons contained in the application being made	Scene 2, 3, 4, 6, 8, 10, 12, 14, 18,19
4	Display sketch for the Simple Present Tense menu, Contains the rules for making sentences accompanied by example sentences	Scene 3, 5
5	Display sketch for the Task menu Simple Present Tense, Contains practice questions from Simple Present Tense	Scene 3, 4

	learning	
6	Display sketch for the Simple Past Tense menu, Contains the rules for making sentences accompanied by example sentences	Scene 3, 7
7	Display sketch for the Task menu Simple Past Tense, Contains practice questions from learning Simple Past Tense	Scene 3, 6
8	Display sketch for the Present Continuous Tense menu, contains rules for making sentences accompanied by example sentences	Scene 3, 9
9	Display sketch for the Present Continuous Tense Task menu, Contains practice questions from Present Continuous Tense learning	Scene 3, 8
10	Display sketch for the Past Continuous Tense menu, Contains rules for making sentences accompanied by example sentences	Scene 3, 11

b. Navigation Structure Design

Furthermore, for the navigation structure design method, when designing an interactive multimedia, there are several basic navigation models, where programmers must be familiar with the program being made because each model will provide solutions for different needs [19].

c. Use Case Diagram

One design model that can be used to describe the steps or processes of an application using UML (Unified Modeling Language) [20]. The following is an overview of the process contained in the application in Fig. 3.

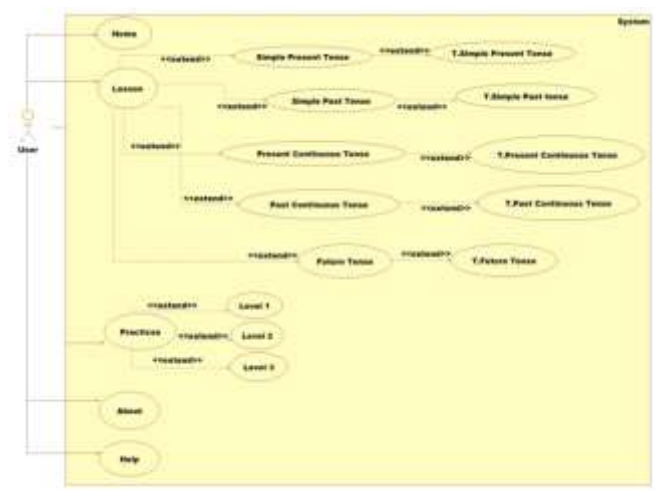


Fig. 3. Use Case Diagram

d. Class Diagram

Class diagram as seen in Fig. 5, describes the process structure of the application, where in the diagram class, there

are any operations that can be performed by each page in the application.

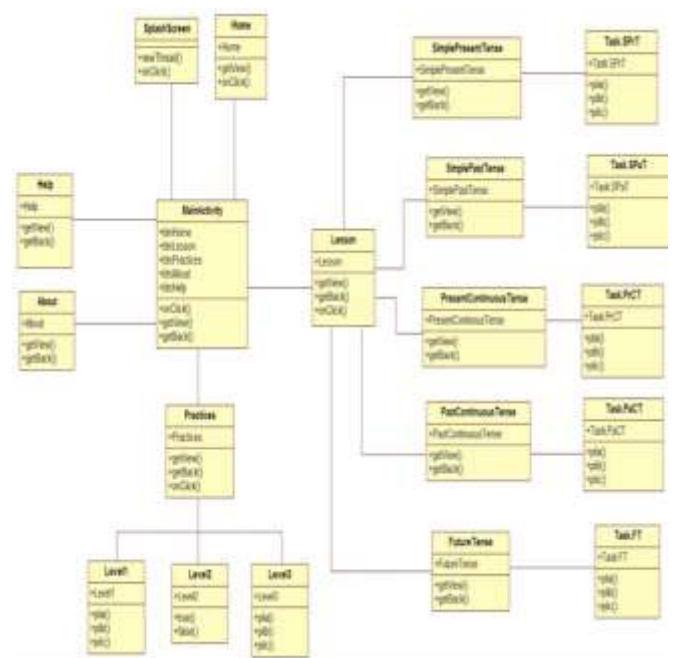


Fig. 4. Class Diagram

3) Material Collecting

Collecting material is the material gathering stage. The materials collected are images, audio, digital photos, backgrounds and other supporting images. In practice, this stage can be done in parallel with the assembly stage. Most of the images about logos, icons, background designs are made by themselves according to the theme raised. Meanwhile, for the making of interactive multimedia will use adobe flash [19].

4) Assembly

Assembly is the stage after making the storyboard and navigation structure. At this stage, an interactive multimedia program interface will be made. Where this program was created using the Adobe Flash program with the Actionscript 3.0 programming language. The results of this interactive multimedia creation are saved in .fla format and distributed into files with a format that will run on an Android 4.0 smartphone.

a. Splash Screen Page Views

Fig. 5 shows the application interface when the application starts. On this interface there is a logo image in the middle of the stage where the logo functions as a button to go to the home page. At the end of the stage there is a button to exit the application.

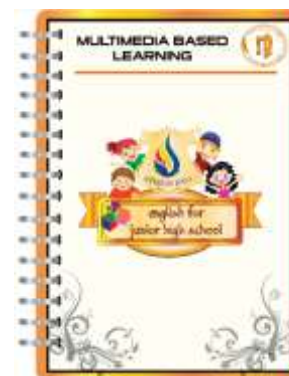


Fig. 5. Splash Screen Page Views

b. Home Page Views

Home is the starting page to start the program, where on this home page there are 4 main buttons including lesson, practices, about, and help. In the right corner of the stage there is a button to exit the application. As seen in Fig. 6, which shows the interface of the home page.



Fig. 6. Home Page Views

V. CONCLUSION

From the discussion that has been mentioned in making interactive media applications, several conclusions can be drawn including:

1. This interactive media application for learning tenses can help students obtain information and make it easier for students to understand English lessons, especially tenses material
2. Interactive media applications are one way to make students more interested in learning material to find out information and understand the information they are looking for because the media used is interactive and user friendly.

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