



The Application for Recognition The Cultural Of The Mandailing Tribe In North Sumatra Using Adobe Flash

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ARTICLE INFO	ABSTRACT
<p>ARTICLE HISTORY: Received : Revised : Accepted :</p> <p>Keywords: Application, Culture, Mandailing Tribe, Adobe Flash, Multimedia Development Life Cycle.</p>	<p><i>Indonesia is a country with diverse ethnicities and culture. Along with the development of the times, information technology is also growing and people's lifestyle are increasingly modern. In connection with the development of people's lifestyle, in fact ethnicity and culture are starting to fade away. Even the interest of the younger generation to get the tribes and cultures that exists is starting to wane. Therefore , there is a need for action to increase the interest of the younger generation to get to know the diversity of ethnicities and cultures in Indonesia by utilizing information. The purpose of this research is to build and introduction to the culture of the Mandailing tribe using adobe flash. The information collections technique that the author use by making questionnaire. For the analytical method, the author use the multimedia development life cycle method, namely drafting, designing, gathering materials, manufacturing, testing, and distribution. The design of this use adobe flash. The final result of this research is an application system for cultural recognition of the Mandailing tribe using adobe flash.</i></p>

INTRODUCTION

As the years go by, all aspects of life in the social, cultural, economic, artistic, information and communication technology (ICT). Developments in the ICT field are the most rapid development in the current era [1]. The development of technology has increased the level of mobility and the way human think. Advances in information technology have produced many system that are designed to work more optimally and efficiently.

Culture comes from the Sanskrit language that is buddhayah, which is the plural form of buddhi. Which is defined as matters relating to human mind and reason. In English culture comes from the Latin word colere which means cultivating or working [2]. Indonesian cultural heritage is a product of the work of previous person who ate tangible and intangible in Indonesia. North Sumatera Province is very rich in natural resources, tourist attractions, as well as tribes and cultures. But in reality tribes and cultures are less valued by the community. Seeing the fact that Indonesian people today prefer foreign cultures that they consider more interesting or even more unique and practical, many local cultures are fading due to the lack of the next generation who have an interest in learning to inherit them. Therefore, to anticipate the fading of tribes and cultures, it is necessary to have a facility that provides information that can be accessed by the community.

Multimedia development life cycle (MDLC) is a suitable method in designing and developing a media application that is a combination of images, sound, video, animation, and other media. MDLC was developed by Luther (1994). MDLC is carried out based on six stages, namely concept, design, material collecting, assembly, testing and distribution [3]. The author utilizes Adobe flash as a medium in introducing the culture of Mandailing Tribe. The culture that will be introduced includes : traditional songs, traditional dances, traditional clothes, traditional weapons, traditional food and traditional houses. Based on the description above, the author made a research with the title “The Application For Recognition The Culture Of The Mandailing Tribe In North Sumatra Using Adobe Flash” with the hope of increasing people’s love for preserving tribes and cultures as part of Indonesia’s national cultural diversity. This application will be a medium of information to obtain specific information about the Mandailing tribe in North Sumatra.

RESEARCH METHODS

2.1 Research Methodology

The methodology used by the author in developing application for recognition the culture of the Mandailing tribe is multimedia development life cycle (MDLC). MDLC is carried out based on six stages, namely concept, design, material collecting, assembly, testing and distribution.

The type of research used by the author for this research is quantitative research. Its said to be quantitative research because in the data collection technique the author uses a questionnaire or survey result in his research.

2.2 Data Collection Technique

Data collection techniques are the most strategic step in research because the main

purpose of research is to collect data. The data collection techniques in this study are as follows:

a. Literature Study

Literature study, namely, an activity of analyzing and evaluating research results and collecting books and journals and sources that are considered important and have something to do with writing the final project to strengthen the ideas and thoughts of researchers.

b. Observation

Observation, namely, a step that will be taken. In this study, data collection was carried out to be used as material in making an application for recognition the cultural of the Mandailing tribe as a form of learning about the introduction and learning to the community about the culture of the Mandailing tribe.

c. Analisis, Design System analysis and Design

Analysis and Design System analysis and design, namely, analyzing the problems to be studied and designing in detail about what will be done and how to present it. At this stage, learning media is made using the Adobe Flash application as a media maker.

2.3 System Design

System design aims to provide an overview of the animation that will be made and aims to make this learning media animation easier to understand and understand as well as interesting to watch. This learning media is devoted to the community, especially teenagers to learn the culture of the Mandailing tribe. This application made using Adobe Flash

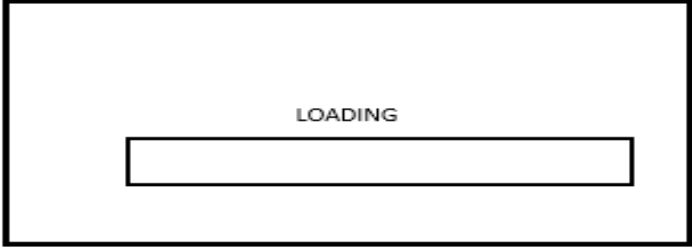
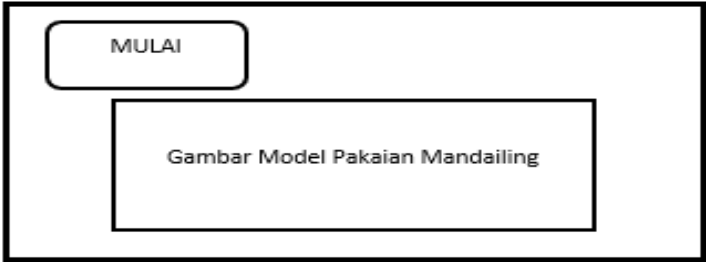


2.4 Development Stage

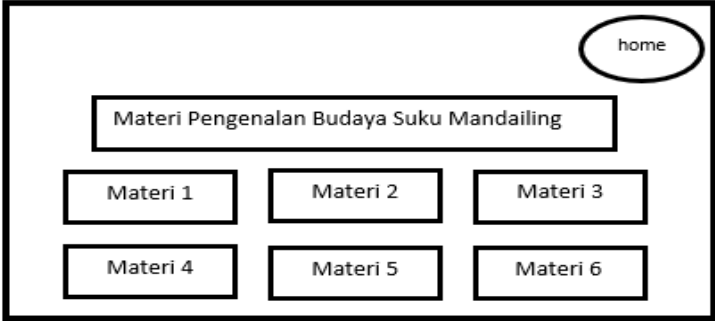

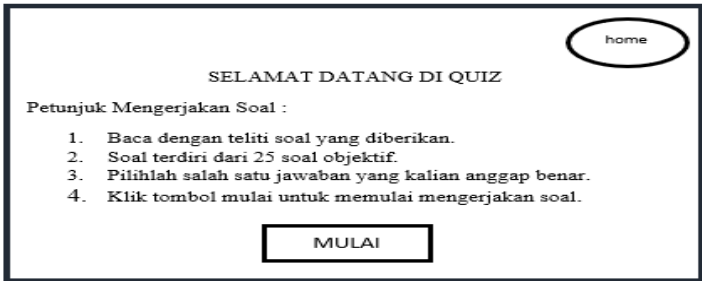
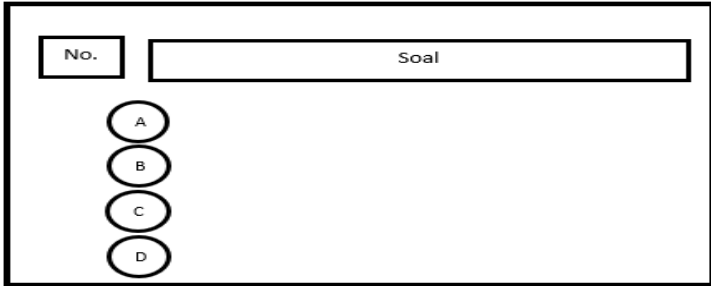
The Development stage is the author's initial stage in designing animated media for the introduction culture of the Mandailing tribe, where at this stage it is determined what story ideas will be included in the video.

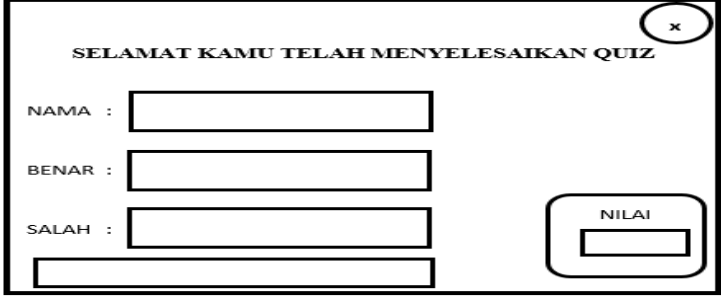

2.5 Pre-Production Stage

At this stage, the author does several processes before entering the production stage rather than the animation produced according to what the author wants.

Table 1 Application for Recognition the Cultur of the Mandailing Tribe Storyboard

No	Visual Sketch	Description
1.		Loading Display The page displays the opening waiting for the application to open.
2.		Opening Display The page displays the preamble after the application opens.
3.		Application Title Display The page displays the application tittle and is used to go to the main menu.
4.		Main Menu Display The page displays the main menu of the application: Material Button Quiz Button Exit Button Button (X)

5.	 <p>The screen displays a grid of six buttons labeled 'Materi 1' through 'Materi 6' arranged in two rows of three. Above the grid is a button labeled 'Materi Pengenalan Budaya Suku Mandailing'. In the top right corner, there is an oval button labeled 'home'.</p>	Material Display The page displays a selection of material to be informed. The user just has to choose one of the material buttons to be studied. User can also return to the main menu by pressing to the home button.
6.	 <p>The screen displays a large rectangular area with the text 'ISI MATERI' in the center. Above it is a smaller rectangular area labeled 'Judul Materi'. In the top right corner, there is an oval button labeled 'home'. In the bottom right corner, there is an oval button labeled 'Next'.</p>	Material Content Display The page displays the contents of the material that will be informed based on the material that has been selected in the material display. User can also return to the material display by pressing the home button.
7.	 <p>The screen displays the text 'SELAMAT DATANG DI QUIZ' at the top. Below it, the text 'Petunjuk Mengerjakan Soal :' is followed by a list of four instructions: 1. Baca dengan teliti soal yang diberikan. 2. Soal terdiri dari 25 soal objektif. 3. Pilihlah salah satu jawaban yang kalian anggap benar. 4. Klik tombol mulai untuk memulai mengerjakan soal. At the bottom center, there is a rectangular button labeled 'MULAI'. In the top right corner, there is an oval button labeled 'home'.</p>	Quiz Start View The page displays instructions for working on quiz questions. User can start the quiz by pressing the start button.
8.	 <p>The screen displays a question format with a label 'No.' followed by a large rectangular area labeled 'Soal'. Below the 'Soal' area, there are four circular buttons labeled 'A', 'B', 'C', and 'D' arranged vertically.</p>	Quiz Content View The page displays the questions that are tested. The user selects one of the correct answers and proceeds to the next question.

9.	 <p>The interface for the Quiz Result Display shows a title bar with a close button (X). Below the title bar, the text "SELAMAT KAMU TELAH MENYELESAIKAN QUIZ" is displayed. There are four input fields: "NAMA :", "BENAR :", "SALAH :", and "NILAI :". The "NILAI :" field is highlighted with a rounded rectangle.</p>	<p>Quiz Result Display The page displays the value result of the user's correct answer in the quiz that has been completed.</p>
10.	 <p>The interface for the Application Exit View shows a title bar. Below the title bar, the text "APAKAH ANDA YAKIN INGIN KELUAR ?" is displayed. There are two oval buttons labeled "YA" and "TIDAK".</p>	<p>Application Exit View The page displays a warning display wheter the user wants to exit the application.</p>

2.6 User Interface Design

This user interface design will explain how the display menu design of the application will be designed.

a. Loading Display

This loading display serves to display the opening page and to wait for the application to open. The loading view can be seen in figure 1.

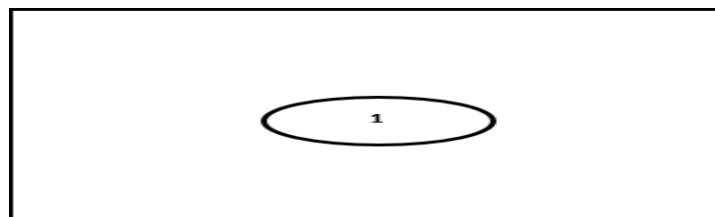


Figure 1. loading interface design

Description :

1. Text tool, used to display the loading or opening page before the application is run.

b. Opening Scene Display

The opening ssene display is the display after the loading display. The opening scene can be seen in figure 2.

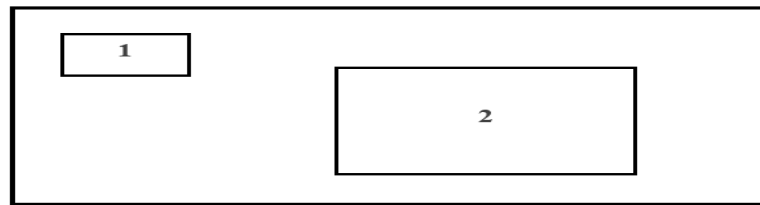


Figure 2. Opening Interface Design

Description :

1. Button, used to display the play button.
2. Picture, used to display a picture of Mandailing clothing model.

c. Application Title Display

This display is used to display the application title accompanied by animation effects. The application title display can be seen in figure 3.

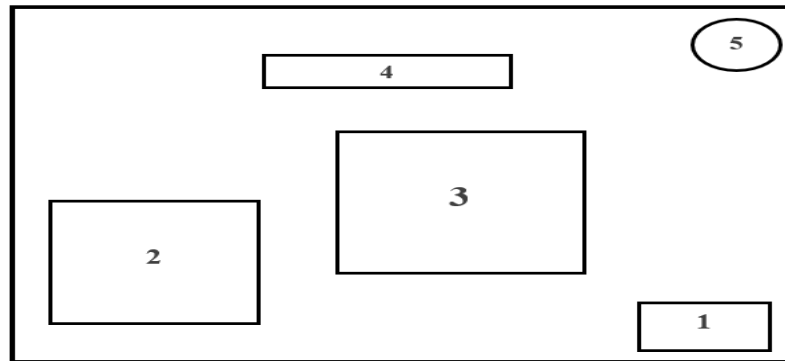


Figure 3. Application Title Interface Design

Description :

1. Button, used to display the menu button.
2. Picture, used to display a picture of a traditional Mandailing house.
3. Picture, used to display a picture of a traditional Mandailing clothes.
4. Text tool, used to display application title.
5. Button, used to display the x button to return the previous scan.

d. Main Menu Display

On the main menu display, it functions to display button consisting of materials, quizzes, button x and exit. The main menu display can be seen in figure 4.

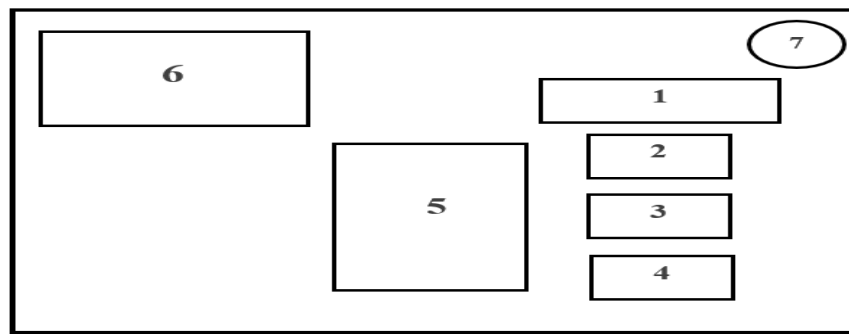


Figure 4. Main Menu Interface Design

Description :

1. Text tool, used to display the title.
2. Button, used to display the materials contained in the application.
3. Button, used to display questions about the material that has been presented, as well as to test the user's understanding of the existing material.
4. Button, used to exit the application.
5. Picture, used to display traditional Mandaing Clothing.
6. Text tool, used to display an appeal to read the material first.
7. Button x, used to return the previous scan.

e. Material Display

This material display functions to display the materials contained in the application. In this display there are several material buttons, namely traditional house material, traditional music, traditional dance, traditional weapons, traditional food and traditional clothing. The material display can be seen in figure 5.

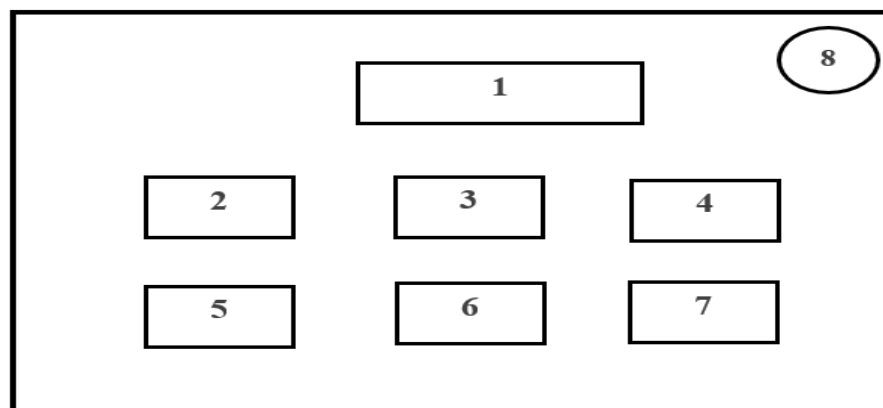


Figure 5. Material Interface Design

Description:

1. Text tool, used to display the title.
2. Button, functions to display material about the traditional house of the

Mandailing tribe.

3. Button, functions to display material about traditional music of the Mandailing tribe.
4. Button, functions to display material about traditional dance of the Mandailing tribe.
5. Button, functions to display material about traditional weapons of the Mandailing tribe.
6. Buttons, functions to display material about traditional foods of the Mandailing tribe.
7. Button, functions to display material about traditional clothing of the Mandailing tribe.
8. Button x, function to return the previous scene.

f. Quiz Display

The quiz display functions to display questions about the material that has been presented, as well as to test the user's understanding of the exiting material. The questions created in the quiz are in the form multiple choices to make it easier for users to answer the question given. In order to get a large value (point), the user must answer the questions correctly. The quiz display can be seen in figure 6.

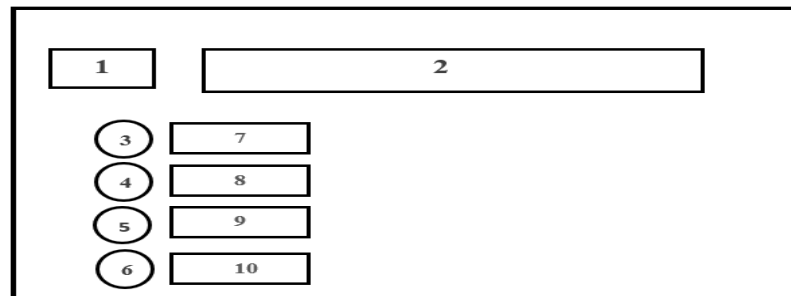


Figure 6. Quiz Interface Design

Description :

1. Text tool, used to display the question number.
2. Text tool, used to display the quiz question.
3. Button, used to display the button a option.
4. Button, used to display the button b option.
5. Button, used to display the button c option.
6. Button, used to display the button d option.
7. Text too, used to display the answer option on button a.
8. Text too, used to display the answer option on button b.
9. Text too, used to display the answer option on button c.
10. Text too, used to display the answer option on button d.

g. Quiz Result Display

The quiz result display functions to display the value (point) obtained by user in answering the questions in the material test. The user's point is accumulated after the user answers the questions correctly or incorrectly. Quiz result display can be seen in figure 7.

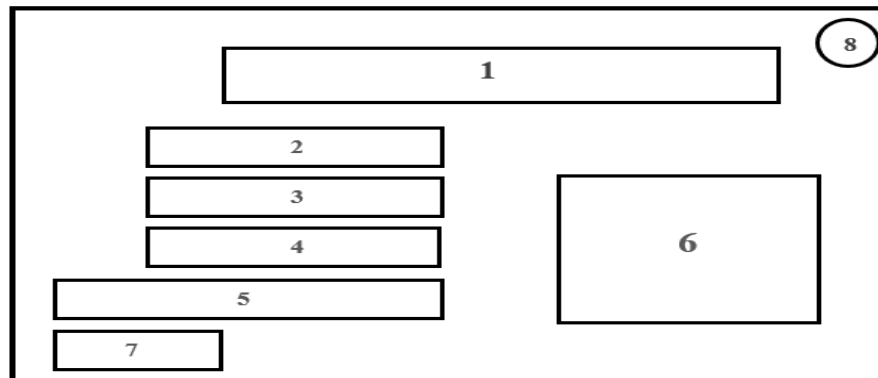


Figure 7. Quiz Result Interface Design

Description :

1. Text tool, used to display the title.
2. Text tool, used to display the name.
3. Text tool, used to display the number of correct.
4. Text tool, used to display the number of incorrect.
5. Text tool, used to display comments on good and bad scores.
6. Text tool, used to display the scores obtained in the quiz.
7. Button, used to restart the quiz.
8. Button, used to display option to exit the application.

h. Exit View

The exit view is used to exit the application. If the user has finished using the application, the user can press the x button located in the upper right corner of the main menu. Exit view can be seen in figure 8.

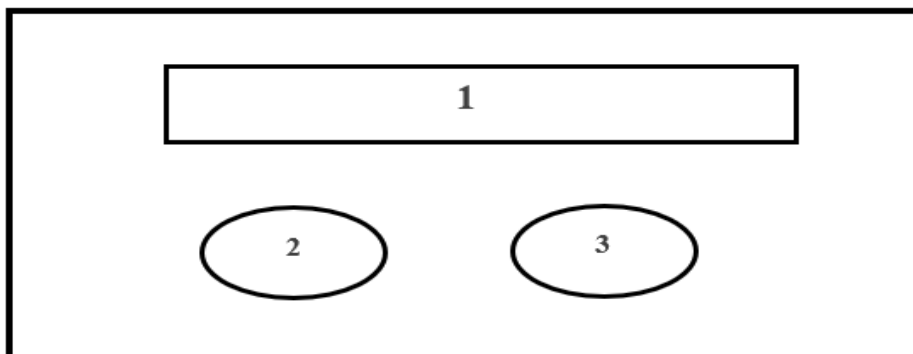


Figure 8. Exit Interface Design

Description :

1. Text tool, to display the question whether you want to exit the application.
2. Button, to display the yes option, if you want to exit the application.
3. Button, to display the no option, if you do not want to exit the application.

RESULTS AND DISCUSSION

Implementation is the result of a design that becomes an application program that can be operated and has achieved results that are in accordance with the design that has been made previously. After carrying out the analysis and application design stages, the next stage is achieving the results of the software that has been made. In order to find out whether the system that has been designed can run well or not, it is necessary to test the system that has been built.

The result of the application program that was built are as follows:

1. Scene loading display.
2. Opening scene display.
3. Application title scene display.
4. Menu scene display.
5. Material scene display.
6. Initial scene quiz display.
7. Personal data input display.
8. Questions scene display.
9. Quiz result scene display.
10. Exit scene display

3.1 Scene Loading Display

The scene loading display is the first display in the application for recognition the culture of the Mandailing tribe. The scene loading display can be seen in figure 9.



Figure 9. Scene Loading Display

3.2 Opening Scene Display

The opening scene display is the display after the scene loading. The opening scene display can be seen in figure 10.



Figure 10. Opening Scene Display

In the opening scene, there is a play button that functions to start the application to introduce the culture of the Mandailing tribe. In addition, there are also animated icons of women and men wearing traditional Mandailing clothes.

3.3 Application Title Scene Display

The application title scene display is a display that contains the application title. The application title scene display can be seen in figure 11.



Figure 11. Application Title Scene Display

On the application title scene display, there are two buttons, namely the close button and menu button. The close button function to exit the application title scene and return to opening scene. While the menu button function to open the application menu display. In addition, there are also two icons, namely the animated icon of a man and a woman wearing traditional Mandailing clothes and the second is the icon of a Mandailing traditional house .

3.4 Scene Menu Display

The scene menu display is a menu containing material button, quiz button, exit button, close buttons, each of which has a function to display its respective functions and there are also cartoon illustrations as supporting animations in this scene menu display. The scene menu display can be seen in figure 12.



Figure 12. Scene Menu Display

Description figure 12:

1. Material button : function to display the material menu in the application.
2. Quiz button : function to display the initial quiz display
3. Exit button : functions to exit the application.
4. X button : functions to return to the opening scene.

3.5 Scene Material Display

The scene material display functions to display the available materials , namely traditional house, traditional dance, traditional music, traditional weapons, traditional food and traditional clothing. The scene material display can be seen in figure 13.



Figure 13. Scene Material Display

Description figure 13:

1. Traditional house button : functions to display traditional house material.
2. Music instrument button : functions to display music instrument material.
3. Traditional dance button : functions to display traditional dance material.
4. Traditional weapon button : functions to display traditional weapon material.
5. Traditional foods button : functions to display food material.
6. Traditional clothing button : functions to display traditional clothing material.
7. Home button : function to return the main menu.

3.6 Initial Scene Quiz Display

In this display, users are advised to read the material first, when they have finished reading the material, they will then enter the initial scene quiz display, where this scene will contain a guide before working on the quiz. The initial scene quiz display can be seen in figure 14.



Figure 14. Initial Scene Quiz Display

On the initial scene quiz display, there is a guide that can help users before working on the quiz. In addition to the quiz guide, there are two buttons, namely the start button and the home button. The start button functions to take users to the quiz questions. While the home button functions to return to the main menu.

3.7 Personal Data Input Display

In the personal data input display, the user is advised to fill in the name first before starting to work on the questions in the next scene. The personal data input display can be seen in figure 15.



Figure 15. Personal Data Input Display

In this scene, the user will be asked to enter a name first so that they can start working on the questions in the quiz material. There is a start button that can be used to start working on the questions.

3.8 Question Scene Display

In this question will display questions that have been provided according to the material that has been studied previously, in this scene the user will be given questions consisting of 25 questions related to the material that has been studied previously. This question is in the form of multiple choices. The question scene display can be seen in figure 16.

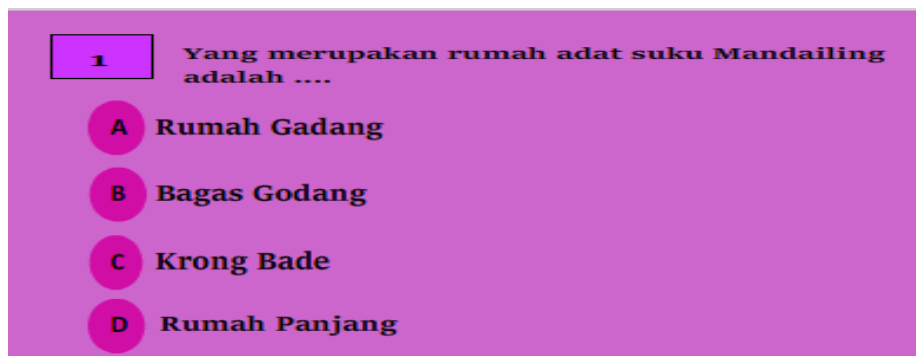


Figure 16. Question Scene Display

3.9 Quiz Result Scene Display

In this display will display the score results of the quiz question that have been answered by the user. The quiz scene result display can be seen in figure 17.

Selamat Kamu Telah Menyelesaikan Quiz

NAMA :

BENAR :

SALAH :

NILAI

00

MULAI LAGI

Figure 17. Quiz Result Scene Display

In this display, there is a name column according to what the user has filled in the personal data input scan. In addition, there is also a true and false column according to the number the user gets when answering the quiz. And there is a column of your score that will display the result of the score that the user get after answering the quiz question that have been displayed. There is a comment column that will appear according to the result user gets. And there is a start again button if the user wants to repeat answering the quiz question, then the user will return to the first question to the twenty fifth question, but if they do not repeat the material test question, the user can select the close button on the top right of the quiz result display will display the successful quiz result. The successful material test scene can be seen in figure 18.

Selamat Kamu Telah Menyelesaikan Quiz

NAMA : IRA WARDANI

BENAR : 23

SALAH : 2

NILAI

92

GOOD JOB

MULAI LAGI

Figure 18. Successful Quiz Result Scene Display

This display will display the results of the user's score after answering the displayed material test questions. If you get a score of 70 or above, the user is declared successful in answering the material questions. The next display will display the failed material test result. The failed material test scene can be seen in figure 19.



Figure 19. Failed Quiz Result Scene Display

In this display there is a column of your score that will display the score results that the user gets after answering the material test question that have been displayed. If the score is below 70, the user is declared to have failed answering the material test questions.

3.10 Exit Scene Display

In this scene the user can choose to exit the application or not. The exit view can be seen in the figure 20.



Figure 20. Exit Scene Display

In this display, the user can choose to exit the application or not. If the user selects the yes button, the application will be closed, but if the user select the no button, the user will return to the scene menu.

CONCLUSION

From the application of introducing the culture of the Mandailing tribe in North Sumatra, it can be concluded as follows: 1) Determining the main application used, namely Adobe Flash CS6; 2) Choosing the help of other software as a supporting

editing application such as Adobe Photoshop; 3) Determining the material to be used in the learning media; 4) Collecting the required materials such as images, illustrations, animations, backsound, backgrounds, etc; 5) Creating application designs and application designs; 6) Creating interactive learning media; 7) Learning media applications are ready to be built. This section briefly summarizes the results and discussion of the research. This section also explains the implications of the results, research limitations and recommendations for future research development.

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