Aceh Serune Kale and Rapai Ethnic Musical Instrument Preservation Method Based on Two-Dimensional Multimedia Animation

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Abstract. Ethnic musical instruments are cultural heritage that must be preserved. This is done so that the existence of these musical instruments is not extinct and can continue to be known to future generations. Aceh is an area that also has ethnic musical instruments of various kinds such as Serune Kalee and Rapai. During this time, the preservation of musical instruments was carried out through the performance of cultural arts in the form of stage performances or art exhibitions with a predetermined and limited schedule. Therefore, to be able to preserve these musical instruments, it is necessary to introduce these musical instruments so that they are known by the public, especially for early childhood. The method is the use of two-dimensional animated multimedia content so that people can learn these musical instruments in video and audio. The purpose of this study was to design an identification model of the Serune Kale and Rapai ethnic musical instruments with interactive media based on two-dimensional animated multimedia content. This study produced an interactive multimedia application for the introduction of Serune Kale and Rapai ethnic musical instruments developed using Actionscript programming found on Macomedia Flash. In addition, products were also produced that provided information about ethnic Acehnese musical instruments Serune Kalee and Rapai.

1. Introduction
Talking about Acehnese regional culture is inseparable from one of the cultural components of art. One of the arts that characterizes Aceh is Aceh music. In retaining the knowledge of Acehnese art culture and other areas at this time, the local government has made locally-loaded art books in the form of practical textbooks. One of the art learning lessons published by the government is the introduction of traditional Acehnese musical instruments in the form of brochures and printed media published by the Aceh museum. The adoption of an introduction learning model of traditional Acehnese musical instruments based on books is a conventional model that has long been used. However, the application of conventional learning models especially in the introduction to traditional musical instruments is still not so effective. Need a multimedia-based learning model [1] that can invite readers to know the process of hearing and seeing objects directly visually how the shape and sound of the traditional Acehnese musical instrument. Based on the background, this study aims to design and build an interactive media based on two-dimensional animation content that can be used as
a medium to present information about ethnic Acehnese musical instruments so that these musical instruments can be preserved.

Learning media in general is a tool for teaching and learning. Everything that can be used to stimulate the mind, feelings, attention and abilities or skills of students so that it can encourage the learning process. This limitation is quite broad and profound including the understanding of sources, environment, people and methods that are used for learning/training purposes [2]. Understanding Musical Instruments is an instrument or tool that is intentionally created or adapted in order to produce music sounds. Although in principle, anything that can produce sounds with certain tones that can be played by musicians/musicians can be said that the instrument is a musical instrument but specifically a tool made for the purpose of music only. Musical instruments are deliberately made even from shapes, styles and also using different materials. Historically musical instruments were originally made from objects that were easy to find such as shells or animal skins and also parts of plants. As the era of musical instruments evolved with the emergence of various variations and the quality of the material was taken into account. Almost everything contained inside has been used by at least one culture to make musical instruments. Aceh is the province that is the westernmost of the Indonesian State. The city, also called the Veranda of Mecca because it is the entry point and spread of Islam in Indonesia, holds a very fascinating cultural wealth. Among these cultures, of course, traditional Acehnese musical instruments are one of them. And to find out what are the traditional musical instruments from Aceh, some of Aceh’s traditional musical instruments are Serune Kalee. Serune Kalee is a traditional Acehnese inflatable instrument that is a traditional Acehnese traditional musical instrument that has been played since time immemorial. This traditional serune kalee musical instrument is usually played in conjunction with Gendrang Rapai and entertainment programs, dances, welcoming guests of honor to the royal king of the golden age of Aceh Darussalam.

2. Methodology
In designing and making learning the introduction of transportation tools interactively using animation, in general through several stages of the process that must be passed, namely pre-production, production, and post-production. In the pre-production or design section of the introduction learning application, traditional Acehnese musical instruments include themes and (storyboard). In completing this research as well as to complete the final project, several supporting aspects are needed, as shown in Figure 1 below.

![Flowchart of Research Stages](image)

3. Results and Discussion
3.1. Collection of Musical Instrument Objects

The object of Aceh traditional musical instruments collected from several sources on the internet is as shown in Figure 5.

![Figure 2. Objects or images of traditional Acehnese musical instruments](image1)

Before the image is made inserted in Macromedia Flash, it must be cut first using the Adobe Photoshop application as shown in Figure 6.

![Figure 3. Image Shifting Process in Adobe Photoshop](image2)

Then given a vote according to the musical instrument used. Voting is done as shown in Figure 4. To control the sound of mp3 to be played on the Macromedia Flash application, it requires configuration using Actionscript 2.0 programming.

![Figure 4. Music sound editing process with Cool Edit Version 2.1](image3)

For the process of animation of images of musical instruments into a slideshow model, the images of musical instruments that have been collected are exported to the next stage and then animated using the twin motion method as shown in Figure 5.
3.2. Main Page View
The main page display contains some information including the title of the application, namely the interactive multimedia application of the introduction of traditional Acehnese musical instruments. The main page view can be seen in Figure 6.

3.3 Serune Kalee Musical Instrument Information Page Display
The information page for Aceh's traditional musical instrument, SeruneKalee, contains some information including the title of the application, namely the interactive multimedia application of the introduction of traditional Acehnese musical instruments. Then there is a menu to go to other musical instrument information and information on the musical instrument SeruneKalee is like SeruneKalee is a traditional Acehnese wind instrument is a traditional tool of Aceh Musit traditionally played since time immemorial. This instrument is popular in the Pidie, North Aceh, Aceh Besar and West Aceh regions. This traditional serunekalee musical instrument is usually played in conjunction with GendrangRapai and entertainment programs, dances, welcoming guests of honor to the royal king of the golden age of Aceh Darussalam. SeruneKalee along with geundrang and Rapai is a musical instrument since the heyday of the kingdom of Aceh Darussalam until now still decorates / colors music in traditional Acehnese culture. This instrument is a musical instrument like a flute or clarinet, spread in the Malay community. Besides that there is also a picture of the SeruneKalee musical instrument in the form of a Slideshow followed by a button to hear the sound of the instrument with the picture of the speaker and next to it is to stop the sound of the instrument. The display of the SeruneKalee musical instrument information page can be seen at 7.
3.4. Display of Rapa'i Musical Instrument Information Page
Display information pages of traditional Acehnese musical instruments, Rapa'i, there are some information including the title of the application, namely the interactive multimedia application of the introduction of traditional Acehnese musical instruments. Then there is a menu to go to other musical instrument information and information on Rapa'i's musical instruments is like a traditional Rapai instrument is a musical instrument that is sounded by being hit. According to Z.H Idris, this Rapai musical instrument originated from Bahdad (Iraq), and was taken to Aceh by an Islamic announcer named SyehRapi. In the performance, the Rapai musical instrument is played by 8 to 12 players called the Rapai crew. This Rapai musical instrument serves to regulate the tempo and behavior of the rhythm with SeruneKalee and BulohPerindu. Besides that there is also a picture of the Rapai'i musical instrument in the form of a Slideshow followed by a button to hear the sound of the instrument with the picture of the speaker and next to it is to stop the sound of the instrument. The information page display of Rapai'i's musical instrument can be seen in Figure 21.

4. Conclusion
From the results and discussion of this study, it can be concluded that the design of interactive learning models for the introduction of traditional Aceh based multimedia musical instruments using macromedia Flash MX has been successfully carried out so as to produce interactive media for the introduction of ethnic musical instruments Aceh Serune Kalee and Rapai.

References

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