

## **Simalungun Batak Culture Learning Based On Multimedia Applications Using The Computer Assisted Instruction (Cai) Method**

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### **ABSTRACT**

Simalungun Batak culture is a custom inherited from previous generations that still exists today. Still, the influence of the development of the current era is the lack of community knowledge of Simalungun Batak cultures such as Batak scripts, Batak traditional houses, musical instruments, and others, this due to the lack of education given to the community especially to school children so that the knowledge of the Simalungun Batak culture becomes less. The introduction of Simalungun Batak culture is applied with a multimedia-based learning model to be more practical and more comfortable to understand, where this learning uses multimedia-based instruction that is on the computer that is said to be Computer-assisted Instruction. The development of school children's understanding of the teaching of the Simalungun Batak culture has become faster.

**Keywords: Learning, Culture, Multimedia Application, CAI Method**

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### **INTRODUCTION**

Simalungun Batak culture lives in communities in the North Sumatra region, who live together and live in villages and help each other, tolerance. This is what makes the Simalungun people have very noble traditional values that have been inherited by previous generations. Simalungun Batak culture has many cultural elements such as local languages, traditional clothes, works of art, building equipment, traditional houses, and others. Simalungun culture has dance, visual, and music arts. This is the value of local wisdom and togetherness (Purba, 2017).

The condition of the social environment greatly influences the development of the Simalungun Batak culture. If it is not passed down to the current generation, neglect of cultural development will make the Simalungun culture disappear. Simalungun Batak culture must be preserved so that the culture still exists and is maintained, preserving Simalungun culture is not difficult to apply to the general public, this is very important to be a concern for the community, namely by teaching knowledge about Simalungun Batak culture that needs to be expected from children who are still in school so that children can remember the importance of preserving culture (Purba 2017).

Learning is a learning process using certain techniques that aim to maximize knowledge. The conventional learning model is a learning model that is very often used for elementary school level children. Submission of material openly is an ineffective learning. This makes the mindset of elementary school students not real, and students will assume the material being taught is a fairy tale (Rahayu, 2016).

Learning with a simulation model is very good because the learning model with simulation is learning using multimedia applications by following the instructions given have been made by computer. Learning by following computer instruction is to develop information that is communication

(interactive), the presence of audio, video. This learning model will make elementary school children not bored because this learning model has used videos, audio, and pictures that will make children enjoy learning Batak culture (Herayanti and Habibi, 2017).

## **METHOD**

### **Art and Culture**

Cultural arts are works created by previous generations before they developed and lived in groups and looked after and nurtured each other together which contained elements of beauty that had developed from generation to generation. Culture comes from various aspects, such as religion, politics, customs, language, traditional clothing, and works of art. Art and cultural education prioritizes the personality of students with the aim that children's abilities develop better. Children's intelligence consists of interpersonal information, knowledge in emotional control, spiritual intelligence, spiritual intelligence, moral values, linguistics, mathematical logic (TANTRI SETIANINGRUM 2014).

### **Study**

Learning is increasing knowledge from the unknown to knowing, and when this process is successful, a person is said to have learned. Learning can be analogized as a system which means an interaction that is interconnected with one another. The communication in question is like learning objectives, materials, and evaluation of four interrelated things. The interaction model must be considered by a teacher to facilitate the learning process (Rusman and Pd 2012).

### **Contextual Learning Model**

Contextual learning is a way of learning with the concept of linking theory with practice, meaning that teachers teach theory to students, and teachers help students practice the approaches they have learned in real life. The components applied by teachers to produce effective learning are modeling, authentic assessment, inquiry, questioning, learning community, constructivism (Rusman and Pd 2012).

### **Simulation Learning Model**

Simulation learning is learning that imitates activities according to real life with the help of teaching aids. Simulations are applied with psychodrama, role playing, and games. This simulation model is often applied in learning, and simulations are usually applied to learning designs so that the design results are more productive, skills that require practice to be carried out in real situations (Herayanti and Habibi 2017).

### **Learning-Based Computer Model**

Presented on a computer and make it easy for students to learn at any time, and this learning model increases students' desire to learn and challenges students. The existence of software for learning at this time makes the desire of students to learn will increase this is because the subject matter that has been made is in the form of exercises and types of games so that students will not be bored in learning (Herayanti and Habibi 2017).

### **Computer Assisted Instruction (CAI) Method**

Teaching with computer aids or often referred to as CAI (Computer Assisted Instruction), is the use of computers directly to students in delivering material from lessons, providing exercises to students and testing students who have achieved their abilities. CAI (Computer Assisted Instruction) is capable of being a mentor who can replace the teacher's position in the classroom. CAI (Computer Assisted Instruction) is very important for the progress of students in terms of understanding the subject matter, and the material can be repeated continuously until students really understand. In conclusion, the learning method with CAI is a learning method used to help teachers explain material interactively with a tutorial program model that uses computer applications (Rahayu 2016).

### **Application**

The application is the result of a design made according to market demand using a programming

language. Applications are tools that provide convenience in processing needs and results as expected. Applications are programs that are designed according to user requests and carried out by a programmer according to the function and appearance desired by a user (Nugroho 2014).

### **Multimedia**

Multimedia comes from two words, multi and media, multi means many, and the press is usually defined as a tool for or making something, mediation or introduction, the main tool, a form of communication such as newspapers, magazines, or television. When it comes to computer processing, media is considered as a device that displays text, images, graphics, sound, music. The media system is a combination of technology from various media sources such as images, text, audio, animation, and produces video that can be controlled with the help of an interactive computer system (Priyanto 2009).

The learning process uses computer applications with the following stages: (Rahardjo 2011):

1. Data collection
 

Data collection in this study carried out a strategy to obtain data, namely the data collection process is stated as follows.

  - A. Observation
 

See and observe simalungun Batak culture and record the results of observations.
  - b. Interview
 

Conducting interviews in Simalungun district to find data related to the research topic.
  - c. Literature Review
 

This technique is useful for collecting data in producing appropriate research using several sources such as journals, books.
2. Data analysis
 

After the data is collected in its entirety, several ways can be done to facilitate research activities, namely:

  - a. Model Application
 

The CAI (Computer Assisted Instruction) method is a method that can apply multimedia-based learning with computer learning.
  - b. App Design
 

This stage uses the process of designing the display on the application that uses a model and is adapted to its appearance.
  - c. Application Testing
 

The application testing stage is to see the application design results meet the standards on learning applications.
  - d. Learning Implementation
 

At this stage, what is done is to apply the results of tests that are carried out well or whether the application is running.



**Figure 1. CAI Method Concept**

## **RESULTS AND DISCUSSION**

### **Simalungun Culture Learning With CAI (Computer Assisted Instruction) Method**

Learning the art of Batak Simalungun culture as a reference in compiling the specifications needed to help work on the system to be made. The strategy in interactive learning of Simalungun Batak cultural arts learning lies in the delivery that will be carried out. The existence of interactive communication produces information that can help students with a learning strategy. The results of the analysis are used as a reference in preparing the specifications that will be needed in the application of learning arts and culture. The summary of the material is as follows:

1. Model Tutorials

Tutorial is a learning media application that presents material which is a collection of cultural arts topics using software in the form of programs that contain learning materials to be discussed. The following materials will be presented in the application, namely:

**Table 1.**Material Tutorial

Durati on	Discussion	Presentati on	Discussion	Destination
2x30	Letter of the Ten Siah	Textand Pictures	Discussing how to write simalungun script, knowing the sapuluhsiah script in simalungun script	Students can write simalungun script, know simalungun text, know what the sapuluhsiah letter is (simalungun indungni letter).
2x30	Anakni's letter	Textand Pictures	Discuss how to write simalungun script, recognize Anakni letters in simalungun script.	Students can write simalungun script, recognize simalungun script, know what it is letter
2x30	Tuturian	Text	Discussthe origin story of simalungun	Students can interpret all the meanings and purposes of the word simalungun and know the origin of the word simalungun

2. Model Exercise (Drill)

Training and practiceis a teaching method that is carried out by providing exercises, the goal is for the computer to ask questions about art topics that will be completed by students and provide feedback in the form of true or false messages.

3. Simulation Model

The contents of the Simulation model in Simalungun Batak culture learning are as follows:

- A. Video 1: Tortor Huda-huda
- b. Video 2: Tortor Manduda
- c. Video 3: Tortor Somba
- d. Video 4: Haruan Bolon's Torture

4. Game Models

This model is a form of model in computer-based learning that is designed and designed to make students play while learning. This game aims to motivate students in learning while playing so as not to cause boredom while learning. The picture below is a menu display in learning to introduce Culture Simalungun Batak.



**Figure 2.**Main Menu Display

The picture below is a tutorial menu display in learning the introduction of Simalungun Batak culture such as Indungni, Anakni, Tuturian, Traditional Houses, Traditional Clothing, Musical Instruments, Tortors, and Libraries.



**Figure 3.**Tutorial Menu



The picture below is a display of the drill menu in learning the introduction of Simalungun Batak culture, and this menu is the material given to students about Batak cultural knowledge to test the student's abilities.



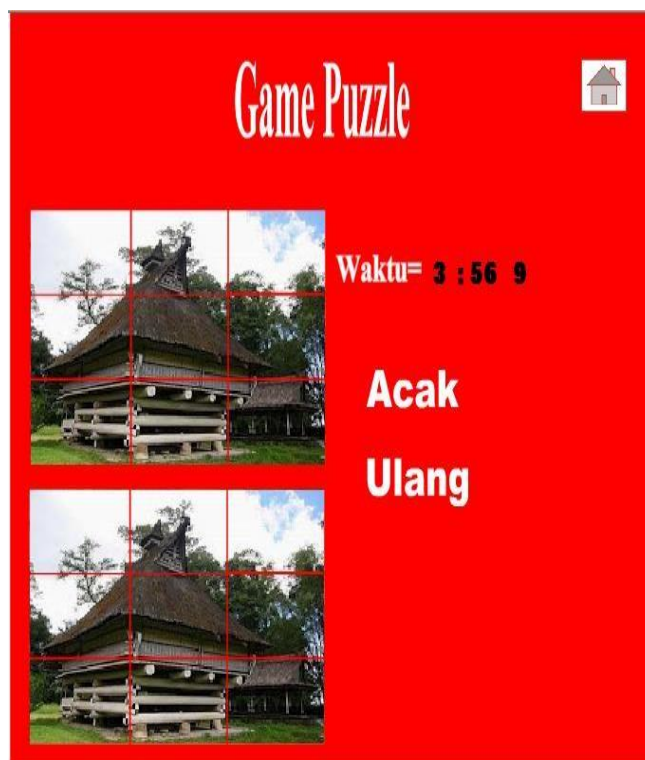
**Figure 4.**Training Menu

The image below describes a simulation menu that is made according to the purpose of the movement, how to use it, and so on. The goal is for students to discuss how to use it for Huda-Huda, Manduda, Somba Tortor, Haruan Bolon.



**Figure 5.**Simulation Menu

This game menu aims so that students do not get bored with the discussion of the previous material with this game so that students remain enthusiastic in learning.



**Figure 6.**Puzzle Games

## **CONCLUSION**

Based on the research conducted, a conclusion can be drawn based on this research. Conventional presentation of cultural arts material makes students feel bored and less interested, so the solution is learning made with computer-assisted simulations. Students are more interested in learning patterns using computers because students can answer practice questions with game models on the computer. Conventional learning also still has many shortcomings, for example in terms of time, books, teachers and distance. Simalungun Batak cultural arts learning.

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