



## Interactive Multimedia Based Model Of Single-Handed Style

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### Abstract

The aims of the study were to create interactive multimedia based model of single-handed style. It gave the variation of single-handed style in multimedia. The source of learning. The study used qualitative and quantitative using Research and Development method. The procedure of study is taken from Borg and Gall which consists of ten stages. The subject of this research is junior high school student. Data were collected through observation, documentation, interview and questionnaire. Data analysis was done qualitatively and quantitatively. The results of finding shows that interactive multimedia model of single-handed style has two forms. These are text-book and e-book. Textbooks can be used as a source of learning as well as other books in other courses. Digital or electronic forms of books, students can use via a laptop/computer.

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## INTRODUCTION

Pencak silat, the performing arts, and the last martial arts fighting sometimes involves the use of weapons such as swords or daggers. The form is related to various legends, concepts and philosophies of religion, religion, and customary legal systems (adat), and is a component of traditional education (Kartomi, 2011). Pencak Silat Martial Arts have various forms. The style used in martial arts has a unique value and beauty that is different from other types of sports. The fighters often look like people are dancing when performing martial arts moves. Every movement at the moment has its own meaning. Elements of the martial dance are also found in the movement's repertoire of traditional dances, including zapin (a popular dance in Johor has Persian influences) and original (literally, "original," forerunner of Malay traditional dance). The aesthetic that informs these dances may derive from practical applications of the martial arts (Latiff, 2012).

Pencak silat is the result of Indonesian culture to defend, maintain its existence (independence), and its integration (unity) on the environment / natural surroundings to achieve harmony of life in order to increase faith and piety to God Almighty (Mulyana, 2013). Thus, in harmony between the living and the creator contained when people learn martial arts. Silat has helped my emotional side, too. It allows me a deeper understanding of my religion, gives me moral guidance, makes me a better person, helps me develop a better respect for life and keeps me humble. (Ried, 2014).

Movement of Pencak Silat moves are not only used for martial arts but are often used as part of beautiful art shows. One stance that has the value of beauty is the stance of single handed-style. It is one of the seven standard single moves. The single-handed style has complex movements because there are various kinds of movements. Every movement has a certain pattern and time. Pencak Silat's single style is a complex set of movements and consists of a variety of movements and moves, both bare hands and weapons. In a single category match, a standard single style consists of 7 empty hand moves, 3 machete weapon moves, and 4 stick weapon moves, with a performance time of 3 minutes (Lubis & Wardoyo, 2014).

Every fighter must be able to memorize a variety of movements, ranging from the shape, sequence, characteristics of the movements to variations that make it possible for a series of movements of a single move to be carried out correctly

and beautifully. In a series of single moves, there are elements of movement: the attitude of the tide, the stance, the pattern of steps, kicks, punches, stunts, rebuttal, catches, under attack, and others that must be mastered properly, memorized and lived in a series of movements. Thus, one must do a lot of practice to master the single-handed style. One way to increase understanding is by learning or observing movements both directly and through certain media.

In essence, learning is a process of interaction between students and learning resources. Learning resources can be either people or non-people. Learning by doing-experiencing that will help students to form a connection with real-life has an important place in out-of-school learning activities (Goksu & Somen, 2018). It means that there must be a good interaction between the teacher and students in conducting learning activities so that conducive situations occur.

Varied learning resources will facilitate student learning in a variety of ways, which are expected to attract student learning interest. The teacher does not only provide material according to the textbook with internal references stated in the results or according to what the teacher has made based on experience and applies equally to all students. In the learning of pencak silat single-handed skills, the teacher generally conveys examples of basic technical movements of the single-handed skill and or is represented by students who have mastered the basic technical skills of the single-handed style based on the logic of the contents and outline framework of the subject in the textbook, then students practice from what is demonstrated by the teacher. But students often feel bored and tired of learning.

The results of preliminary observations indicate that the problem of learning to do single-handed style is not working smoothly. The problems that are often faced by teachers are; 1) students still feel afraid and hesitant to make movements, 2) students do not understand the meaning of every movement in single-handed style, 3) learning media or learning resources are still minimal, 4) the learning process is still oriented on traditional concepts because pencak silat is often associated with classical martial arts, 5) students' ignorance of the use of movements due to the lack of examples provided, and 6) less use of technological media to provide examples of movement.

Even though, nowadays technology is very advanced and makes it easy for everyone to learn various things, such as pencak silat. The development of information and communication techno-

logy has caused changes in the field of education, both in formal education, namely the school system, and informal education (Markovic, Sta, Zorica, & Spasenovic, 2007).

The media is an introduction to messages from sending to the recipient of the message as a channel of information distribution (Rusman, 2013). Learning media can be defined as physical and non-physical tools which are deliberately used as intermediaries between teachers and students in understanding learning material to be effective and efficient (Musfiqon, 2012). Some students may use technologies is aligned with a deep approach to learning (Ellis & Bliuc, 2019), which means that students can use technology in accordance with a deep learning approach so that learning material is more quickly accepted by students with truth and attracts students to learn more continued.

Multimedia can also be interpreted as a tool that can be used to convey messages to achieve the objectives of the learning. In the multimedia learning process, the emphasis is placed on the need to include differently coded external representations such as texts, formulas, shapes and sounds to encourage learning in a variety of ways (Mutlu-Bayraktar, 2019). Example of multimedia: interactive learning multimedia, game applications, etc. Interactive Multimedia E-Learning Environment (IMEE) has recently emerged as a priority area in supporting creative users. The fusion of various types of media in interactive e-learning environments, particularly for programming tasks, has generated intense interest (Lahwal, Al-Ajlan, & Amain, 2016).

The formulation of the problem in this research as follows; how is interactive multimedia-based learning model of single-handed style for Secondary School students?

## METHODS

The research used qualitative and quantitative. The method of research was research and development method. The procedure of research and development used Borg and Gall concept. Borg and Gall (2007) stated that there 10 steps in research and development, these are; 1) Research and information collecting, 2) Planning, 3) Develop preliminary form of product, 4) Preliminary field testing, 5) Main product revision, 6) Main field testing, 7) Operational product revision, 8) Operational field testing, 9) Final product revision, dan 10) Dissemination and implementation.

This study had 40 participants as a sub-

ject to test the model. It is taken from five schools, includes; 1) SMPN 20 Palembang, 2) SMPN 18 Palembang, 3) SMPN 15 Palembang, 4) SMPN 24 Palembang, and 5) SMP Sumsel Jaya Palembang. The process of collecting data used observation, interview, questionnaires, and documentation. The technique of data analysis used qualitative and quantitative. Qualitative data presented reduction data, data display, and conclusion. Quantitative data presented in percentage to know the students' ability using single handed-style.

## RESULTS AND DISCUSSION

The application interactive multimedia single-handed style has several menus available, namely:

1. Instructions. On the usage, the instructions menu explains the media usage instructions containing buttons that have been designed to make it easier for users to choose the menu
2. Profile. This menu explains the profile of researchers throughout the educational period taken, work and achievements that have been achieved.
3. Greetings Opening. In the opening, the greeting menu contains a video display that briefly explains the learning. It will be displayed on the core material that is the single-handed style.
4. Competence. Main competence and basic competence menu contain basic descriptions of the making of the single-handed style of learning in accordance with the characteristics of students in grade IX
5. Material. There is historical material that contains the history of pencak silat, the martial arts competition rules of the fight category with the core categories and material, namely the single-handed style which consists of style 1 to style 7. On the material menu, the single-handed style is empty when we click on the material button then it will come out the style of the material per series of steps in which there are videos of learning, pictures, movement texts and music that are made in such away. This media becomes more interesting and easier to understand.
6. Evaluation. There are questions about all the material presented, the questions are with multiple choice answers and students can see directly the score obtained after answering the question. The aim is to find out how far students are in conveying the material presented.

This is the display of the model;

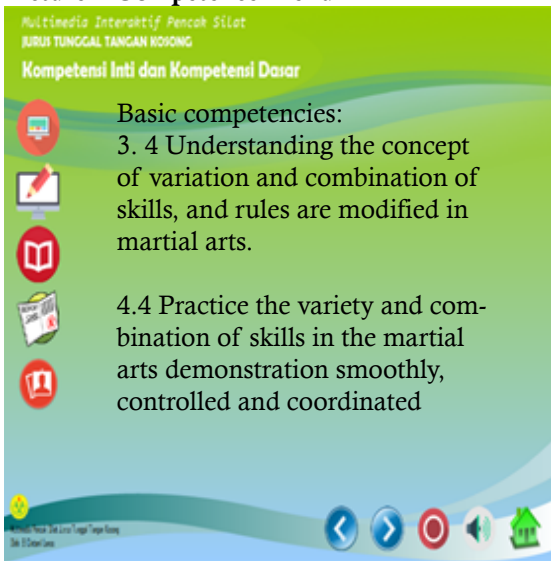
Picture 2. Menu Display



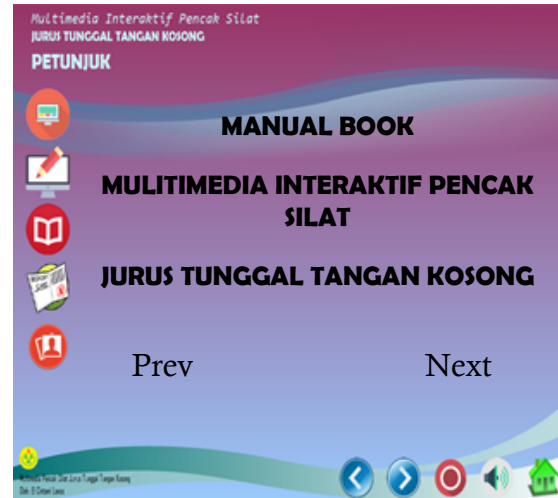
Picture 3. Material Menu



Picture 4 Competence Menu



Picture 5. Screenshot Menu of Direction



Picture 5. Screenshot Menu of Opening



Picture 6. Screenshot Menu of Evaluation



**Picture 7. Screenshot Menu of Profil**



**Picture 10. Screenshot Menu of Material**



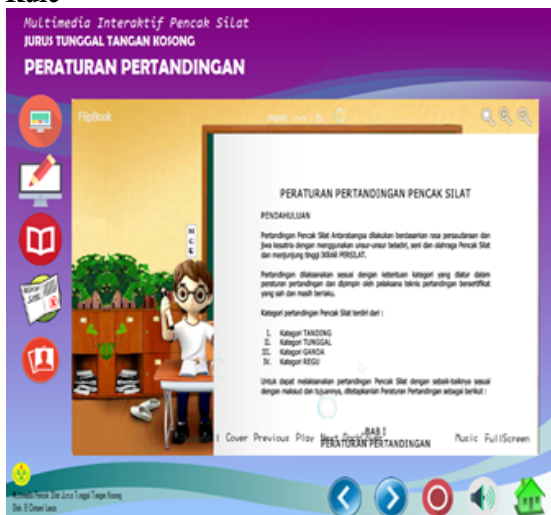
**Picture 8. Screenshot Menu of History**



**Picture 11. Screenshot Submenu of Style 2**



**Picture 9. Screenshot Menu of Rule**



**Picture 12. Screenshot Submenu Video of Style 2**



**Some example of learning variation in each style;**



**Picture 13. Variation of Learning in Style 1**



The characteristics of the material developed to consist of seven sets of movements. Each style consists of several combinations of movements. It shows that the style is a combined movement of several basic movements of pencak silat. Each series of moves is studied by their characteristics and their movements are classified. The results of the movement classification are then developed into a variety of learning activities. It can support the mastery of a series of moves. The learning approach used is a part-to-whole approach and modification of motion activity.

The material expert provides a feasibility assessment of each activity in the current style.

A total of seven moves with 48 movements and 24 variations of movement moves. Material experts judge by giving scores ranging from one to four (Likert scale). Overall, material experts gave a score of 87.62, which means that the model developed was very good, making it feasible to be used in trials. Learning experts provide product feasibility assessments based on four variables, namely suitability and usefulness of the material in helping students learning, grammar, quality of motion presentation, motion security and safety, as well as the characters that are internalized in the developed model.

Overall it obtained a score of 84 which means that the model developed is very good and feasible to be used in trials. Whereas instructional technology experts provide appropriateness of the model based on the variables of show attractiveness, material loading level, interaction level, text quality, image quality, video quality, level of content independence, animation quality, intro display, buttons, and product packaging.

The overall score obtained from learning technology experts is 88.09, which means that the model developed is very good and worthy of testing.

However, the feasibility test theoretically requires a revision of some parts for product improvement. There are revisions in the substance and appearance. The substance needs to be corrected and added is a description of the procedure for implementing a single move and the giving of a line of wind to the image of each movement. In addition, there are improvements in product design both in the form of textbooks and multimedia. Improvements were made to the size of the text, image size, video size, the suitability of the button and the suitability of the title on the video. All suggestions for improvement are carried out by researchers and then returned to the experts.

In addition to the theoretical feasibility test, the product is also tested empirically. This feasibility test is conducted on small group trials and large group trials. Data obtained from each trial in the form of student response data as users of the product, as well as direct observation data of the implementation of the model by a representative observer.

The product trial questionnaire for students consisted of three variables, including the quality of the material, the presentation of multimedia and the usefulness of multimedia. During a small group trial with 12 student subjects, 82.89 results were obtained, which means that the students responded very well. Students are very enthusiastic about the product, so they want to continue to explore the product. Whereas during the trial of

a large group with a subject of 100 students in five schools, a score of 91.59 was obtained, which means that the learning model of pencak silat of single style responded very well by students.

Empirical effectiveness testing is also carried out by directly observing each model developed when practised in learning. An observer who is a pencak silat lecturer is also a national pencak silat trainer present to observe directly. The results of the product feasibility test through direct observation both when testing small and large groups state that all variations of the model developed are feasible to be implemented. It's just that there are some suggestions for improvement to make variations in motion activities to be more precise and interesting. Some of the activities that were improved were the activities of one and two activities, three activities two steps, six activities two and three steps, and seven activities three.

Products are theoretically and empirically feasible. Then the product is tested operationally. This operational trial is carried out by means of direct implementation of actual learning. It also conducted experiments with two control groups and experiments to find out the differences between groups that use learning models. They were developed with groups that use the old learning models. After the implementation is carried out for one semester, students conduct a posttest with the standard instrument of single-handed evaluation. Post-test results of the two groups were tested for normality and homogeneity. Both of these prerequisite tests indicate that the data are normally distributed and homogeneous. While the results of the T-test show that the t-count was 4.11 while the t-table was 1.99. Thus, t-count is greater than t-table, which means that H<sub>0</sub> is rejected and accept H<sub>1</sub>. Thus, the learning model of pencak silat single-handed style based on interactive multimedia is better than traditional learning.

## CONCLUSION

The result of empirical tests shows that the interactive multimedia-based model of single-handed style is feasible to be implemented in learning. Specifically, the core material presented is in the form of a single-handed bare hand where the move cannot be changed because the stance is standard in accordance with the rules set by Ikatana Pencak Silat Indonesia.

The application of the results research for teachers has simplified and smoothed the learning process, for students is to simplify and accelerate the learning process, especially the mastery of skills and techniques. The product of develop-

ment in the form of an interactive multimedia-based model of single-hand style divided into 2 (two) forms, namely; 1) in printed form or textbook and 2) in digital form. Textbooks can be used as a source of learning as well as other books in other courses. Digital or electronic forms of books, students can use via a laptop/computer. Specifically, in the use of learning, both the teacher and students choose to use which form, it all depends on the situation and conditions of each user.

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