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A Needs Analysis of Interactive Multimedia Based Learning Model of Single-Handed Style

Muhsana El Cintami Lanos[1]✉, Hikmah Letari[2]

PGRI University of Palembang, 9 Ulu, Seberang Ulu I, Palembang City, South Sumatra, Indonesia[12]

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Abstract

The purpose of this study was to know the needs analysis of interactive-multimedia based learning model of single-handed style. This study is in Junior High School. This study used a descriptive qualitative method. The process of collecting data used observation, interview, questionnaires, and documentation. The results of learning analysis can be described as follows: (a) the lack of student interest in learning single-handed moves due to the lack of initial knowledge about the single-handed style and at the beginning of learning the teacher only gives warming instructions. (b) In the core learning of the single-handed style, the students perform the movements exemplified by the teacher. (c) Evaluation / feedback has not been found when the learning process takes place related to the mistakes made by student movements. (d) At the end of the learning activities, students are only cool down without a thorough evaluation of the learning that has been done such as a description of the errors of movement. They are often done by students. (e) The absence of further explanation of the material that will be delivered by the teacher so that makes students confused when making movements at the next meeting. It can know from the percentage of students' interesting, enthusiasm, and their agree of interactive multimedia learning. Besides that, the facilities of learning is most dominant using technology.

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✉ Correspondence Author:
E-mail : elcintami@univpgri-palembang.ac.id

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INTRODUCTION

Pencaksilat arts is an object of physical education subjects in schools from junior high school to senior high school. Jurus(2009) stated that pencaksilat is a martial art, performance practice and system of body cultivation prevalent throughout much of Indonesia and the Malay-speaking world. Pencaksilat material at school has become a favorite subject, because this sport can improve health and can also give students opportunities to explore it. According to Facal(2016) that Pencaksilat has a uniqueness in combining sports movements and martial arts moves with elements of art, as well as breathing techniques and spiritual awareness. The introduction of pencaksilat martial arts can be given by the teacher through learning basic techniques which include the martial arts movement skills like as (a) Kuda-kuda, (b) Attitude Attachments, (c) Steps Pattern, (d) Defenses, (e) pull to one side, (f) Attacks, (g) Catches (Lubis&Wardoyo, 2014). The different opinion from Latiff(2012) that «elements of the martial dance are also found in the movement of repertoire of traditional dances, including zapin (a popular dance in Johor that has Persian influences) and original (literally,» original, «fore runner of Malay traditional dance). The aesthetic that informs these dances may derive from practical applications of the martial arts.

In Indonesia, the moves of pencaksilat have been standardized by IPSI (Indonesian Pencak Silat Association), one of which is the single style. In a standard single style consists of seven empty hand style, three machete weapon styles, and four stick weapon styles with appearance time of 3 minutes. Single-handed style has complex movements because there are various kinds of movements. Every movement has a certain pattern and time. Pencaksilat learning single-handed style is studied without using a weapon, then this material will be interesting because students can engage in physical activities without fear. Single-handed movements are not as difficult as those using weapons, but if they are not learned in the right and interesting way, they will become difficult. Pencaksilat learning with single-handed style usually is lacks facilities and infrastructure, so that it can trigger a lack of student motivation when participating in learning.

Gibson (2015) has described that In Indonesia, there are numerous forms of pencaksilat as well as many kinds of kuntao, a type of Chinese boxing that bears many similarities to silat and is found primarily within. 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). Pencaksilat is a traditional sport that contains a lot of spiritual and emotional elements so that those who study it will establish themselves well. Students can explore all aspects that contained in pencaksilat. It gave the positive activity for children. Biggs, Nelson, & Vernberg (2008) stated that Using a traditional martial arts model "the Gentle Warrior Program", The program aims to change children's attitudes about aggression and facilitate the development of effective social problem-solving skills. The program may be especially effective in promoting problem solving because children are encouraged to engage in physical practice of appropriate responses,rather than merely discussing them verbally.

Nowadays, the single-handed style learning approach is not using speech and command system because that approach will make student which are bored, depressed, afraid, insecure and uncomfortable. Therefore, the learning approach is done through fun learning using an approach interactive multimedia will be made students more interesting in learning. They will receive a delivery of knowledge from the teacher with a very easy and foster a sense of security, comfort and confidence in doing the single-handed learning. Tri, et.al (2016) have studied that one form of pencaksilat learning innovation is to combine traditional methods with technological advances using video.While Nelson (2018) has conducted development research for basic techniques of interactive multimedia-based pencaksilat. Interactive multimedia developed contains elements of text, video, animation, and images. Unlike previous research in the form of instructional videos, this multimedia product is equipped with more varied features. Thus, it can be concluded that the interactive multimedia is one of the innovations in the learning of pencaksilat using single-handed style.

Performing single-handed movements is very complex with the intervals in the movement, this movement also has a static and dynamic nature that is integrated in the movement. Yamaguchi (2011) stated that kinetic models can be static (no accelerations) or dynamic (having nonzero accelerations). The kinetic models solve for the forces and moments in evidence at different parts of the structure in situations that are both static and dynamic, because staties is simply a special

case of dynamics. Kinematic models move also, but not in response to forces and moments. Hence kinematic models are typically used to define all the motion possibilities.

However, pencaksilat learning using single-handed style at the junior high school level still faces problems regarding the learning model. The results of observations found that there were problems about single-handed style learning, including, 1) performing single-handed style were not optimal, this could be found when students were doing barehanded learning on pencaksilat subjects in these schools, the students are still afraid to make a move, many students do not want to move, because students do not realize the importance of the benefits after making a single handed style. 2) The movements are not in accordance with the actual movements. It means that the movements have performed by students are not in accordance with the expected movements based on the anatomical movements of the body. 3) The ways of physical education learning, especially the single-handed style, do not pay much attention to the attitudes, and motivation of students towards teaching and learning activities as well as teachers who do not utilize technological developments for the learning process.

Arsyad(2017) stated that the development of science and technology is increasingly encouraging renewal efforts in the utilization of technological results in the learning process. Integrating technology into the curriculum under the umbrella of Science-Technology-Society (STS) education to embrace the social aspects of science, with technology serving as a bridge (Lee & Chung, 2018). Yuri &Yuda(2018) made a product with the aim of building an application that can be used to help pesilatperguruanmerpatiputih especially beginners. It is to find out the results of testing the level of application acceptance using the Technology Acceptance Model (TAM) model.

Based on the explanation, the problem of single-handed learning offers the concept of developing learning models that are in harmony with motoric skills with cognitive and affective roles, students can apply during field practice at school and also become provision when becoming educators.Parker, et.al (2019) has explored the relationship between primary school physical education and physical activity as sites for the practice of physical activity of Irish primary school children. Understanding how children make connections. It explains that the relationship between physical education in schools as a practice of physical activities for students, and students'engage in physical activities will shape learning experiences as complex learning stages become simpler and more meaningful in physical education. While students are able to carry out learning with well. It means that the activity in learning complex motor skills initially becomes a simplified form, with the aim of making it easier to understand the movements to be performed.

Therefore, to get a single-handed style of learning model on the martial arts subjects in accordance with the Secondary Physical Education curriculum and the characteristics of the movement of the single-handed style, the researcher conducts a needs analysis then a learning model that is suited to the needs of students and the curriculum can be obtained The formulation of the problem in this research as follows; how is the needs analysis of interactive multimedia based learning model of single-handed style for Secondary School students.

METHODS

This study used a descriptive qualitative method. Menurut Parse (2001) that the qualitative descriptive research method is described a variety of general qualitative research resources. It views the phenomenon of interest.

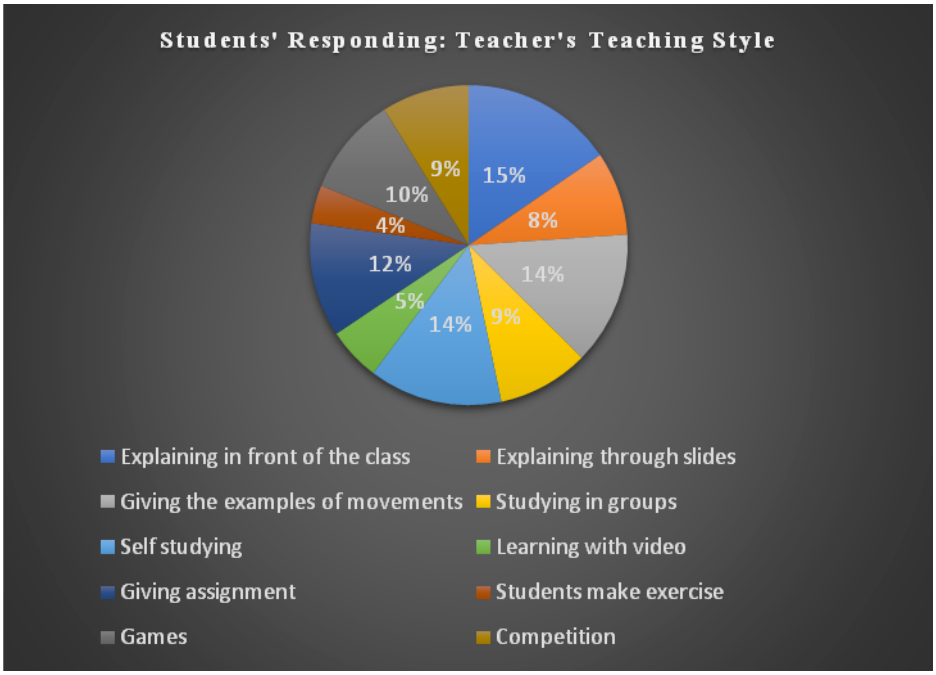
Participants in this study were students in five Junior High School, that are 1) SMP N 20 Palembang.Jln. KI Anwar Mangku, Kec. Plaju Palembang, 2) SMP N 18 Palembang. Jln. Darmapala No. 1A, Bukit Lama, Kec. Ilir Barat Palembang, 3) SMP N 15 Palembang. Jln. A. YaniKec. Seberang Ulu II , Kota Palembang, 4) SMPN 24 Palembang. Jl. TegalBinangun, Kec. Plaju Palembang, and 5) SMP Sumsel Jaya Palembang, Jln, Letkol Iskandar Kec. Ilir Timur I Palembang. The participants are 40 students.

The process of collecting data used observation, interview, questionnaires, and documentation

Descriptive statistical analysis was carried out on the results of the learning analysis questionnaire. The scores obtained are converted to each category then the average score is taken. The results of the descriptive statistical documents and data from observations during the study.

RESULTS AND DISCUSSION

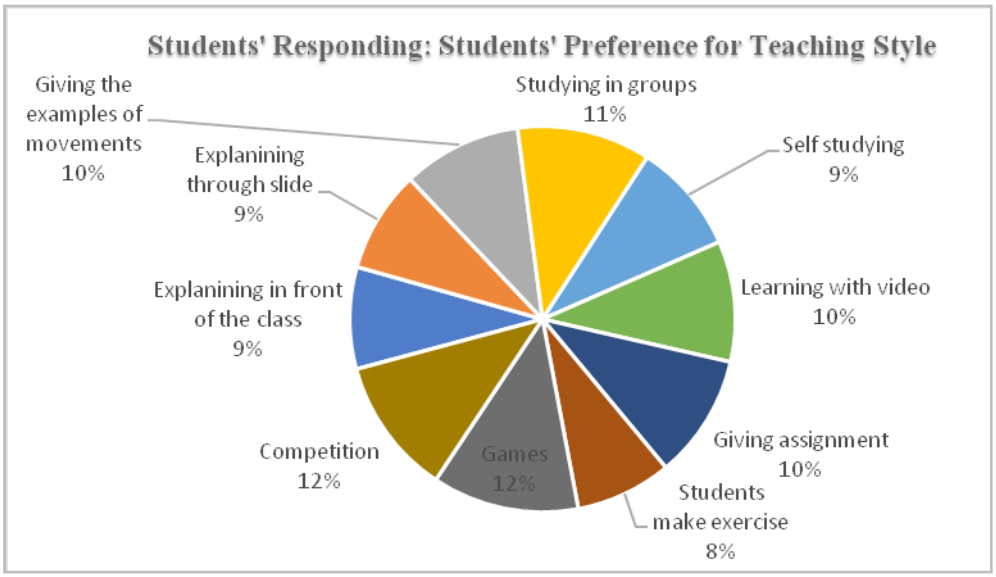
The main data of the needs analysis uses a questionnaire that distributed to students. The results of the data needs analysis are presented in graphical form so that the data is easily understood. The following shows the needs analysis data;



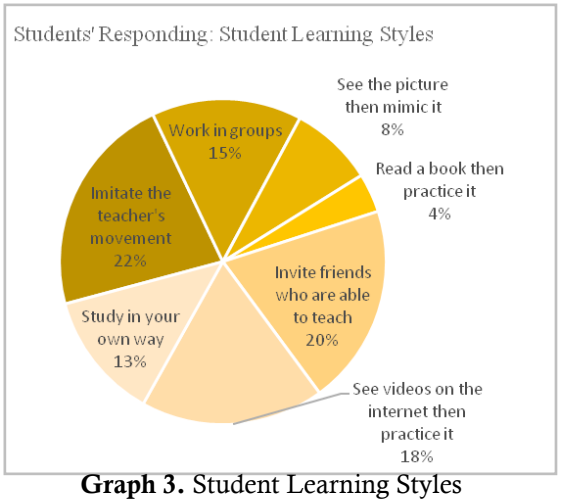
Graph 1. Teacher's Teaching Styles Variabel

Graph 1 can be seen that the most dominant teacher's teaching style is explaining in front of the class with a percentage of 15%, and the lowest one is instructing to make their own exercise with a percentage of 4%. The teaching style is done by command because there are no learning resources other than books that can be used by students to learn outside the classroom. Students in this group find it difficult to create their own complicated forms of training. When the teacher gives these instructions, most students are less interested.

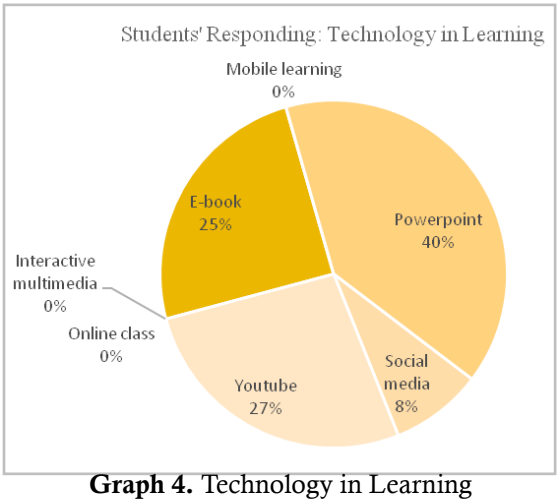
Graph 2 can be seen that the student's preference for the teaching style. Games is the most dominant with a percentage of 12%, the lowest is students make exercise using their own word with a percentage of 8%. It means that it turns out students have poor perceptions of traditional teaching styles is giving explanations in front a class. This can be caused by many factors, but the data is an empirical condition of the learning environment that deserves attention. Because students might be more interested in learning if the teacher can present learning in accordance with student preferences.



Graph 2. Students' Preference for Teaching Style



Graph 3. Student Learning Styles



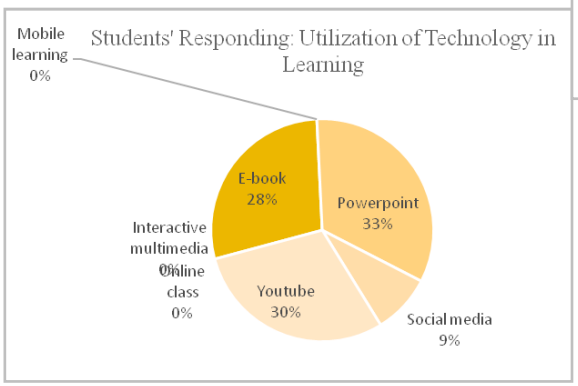
Graph 4. Technology in Learning

Graph 3 can be seen that the most dominant student learning style is imitating teacher movements with a percentage of 22%, the lowest is reading a book with a percentage of 4%. The majority of learning styles occur because students do not yet have many learning choices. The teacher is as the main learning resource will be the first choice for students. The teacher is aware of this and strives to find solutions, because it is not possible for the teacher to continuously give examples of movements to all students. On the other hand, there are resources that can be utilized, especially those related to technology.

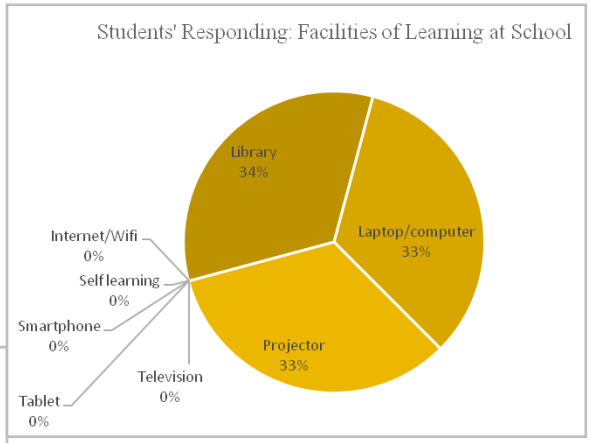
Graph 4 can be seen that the most dominant use of technology in learning is the power point with a percentage of 40%, the lowest is the online class (google classroom, edmodo, moodle, etc.), interactive multimedia, mobile learning applications with a percentage 0%.

Graph 5 can be seen that the most dominant utilization of technology in learning is power point with a percentage of 33%, the lowest is an online class (google classhroom, edmodo, moodle, etc.), interactive multimedia, mobile learning applications with a percentage 0%.

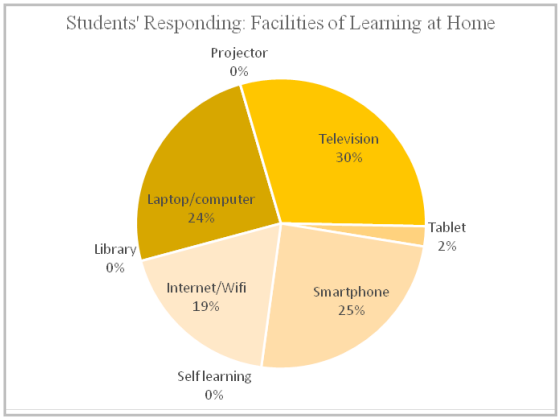
Graph 6 can be seen that the most dominant facilities of learning at school are the Library, Laptop / Computer, Projector / Screen with a percentage of 33,3%, the lowest are Television, Tablets, Smartphones, Independent Study (Self-learning), Internet / Wifi with a percentage of 0%.



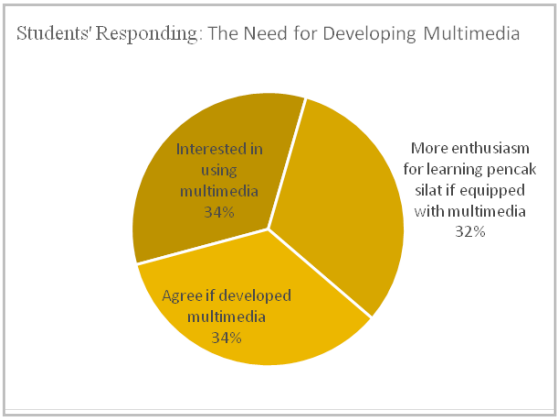
Graph 5. Utilization of Technology in Learning



Graph 6. Facilities of Learning at School



Graph 7. Facilities of Learning at Home



Graph 8. The Need for Developing Multimedia

Graph 7 can be seen that the most dominant facilities of learning at home are the Television, Laptop / Computer, and Smartphone with a percentage of 30%, 24%, and 25%. The lowest facilities that use at home are Libarary, Projector / Screen, and Independent Study (Self-learning) with a percentage of 0%.

Graph 8 can be seen that the most dominant need for developing multimedia is to agree if pencaksilat multimedia is developed which contains videos, pictures, electronic books, music and questions with a percentage of 34%, the lowest is more enthusiasm for learning pencaksilat if equipped with multimedia with a percentage of 32%.

The single-handed style of learning model applied at school has been running quite well even though it has not been maximized due to problems caused by the learning method until the media used is conventional. For this reason, it cannot be denied that there is a need for breakthroughs and the latest innovations in the learning model used, in line with current technological advances. By utilizing interactive multimedia, the renewal of the single-handed style of learning model created with the aim is expected to be able to attract students' interest in learning. Thus, this learning model is very suitable to be applied in the first middle school because it is adapted with the characteristics of students.

The teacher used speech and command teaching style when she gave single-handed style material. The learning resources used by students and teachers are physical education learning books, but the style of reading books and imitating them. This style has the fewest percentage. It means that few students use the learning style with books.

The single-handed style material presented consists of moves one to four moves. Whereas, the single-handed style actually consists of seven sets, because it is the limited time and learning resources that make the delivery of a single style is not optimal, there are difficulties in conveying the number of sub material if it is only during learning in the classroom. The teacher thinks that there is indeed a need for a media which can help students to learn independently both individually and groups outside the classroom.

The results of learning analysis can be described as follows: (a) the lack of student interest in learning single-handed moves due to the lack of initial knowledge about the single-handed style and at the beginning of learning the teacher only gives warming instructions. (b) In the core learning of the single-handed style, the students perform the movements exemplified by the teacher. (c) Evaluation / feedback has not been found when the learning process takes place related to the mistakes made by student movements. (d) At the end of the learning activities, students are only cool down without a thorough evaluation of the learning that has been done such as a description of the errors of movement. They are often done by students. (e) The absence of further explanation of the material that will be delivered by the teacher so that makes students confused when making movements at the next meeting.

Based on the results of the analysis of the learning environment, one indicator shows that there are computer learning facilities at school, and 82.5% of students have a computer or laptop at home. This opens up opportunities for the development of computer-based learning media that can be used by students to increase learning interest.

The product development models in this study were prepared based on the characteristics of the material and the learning environment. A printed learning model book that is equipped with a variety of activities, then it equipped with multimedia.

The characteristics of the material developed consist of seven sets of movements. Each move consists of several combinations of movements. This shows that the move is a combined movement of several basic movements of pencaksilat. Each series of moves is studied by their characteristics and their movements are classified. The results of the movement classification are developed into a variety of learning activities that 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 analysis of the movements of each move has produced motion activities which are compiled into a draft book of learning models for pencaksilat single-handed style. This draft model is also a guideline for video capture for multimedia development purposes.

CONCLUSION

The result of needs analysis data concluded that the learning environment of pencaksilat using single-handed style needs to be developed by adding a variety of learning models which supported by interactive multimedia learning resources. The learning resources used so far are only books. This means that the learning process is not supported by other literacy as additional learning resources and it causes students to be less prepared to learn and less motivated.Students expressed great interest in the development of an interactive multimedia-based single martial arts learning model. They would be more excited if there was interactive multimedia. This is a very strong foundation for future researchers to take innovative steps to help improve the quality of physical education teacher learning with the help of multimedia learning.

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