THE 3RD INTERNATIONAL SEMINAR ON PE, SPORT & HEALTH 2013 IMPLEMENTATION OF COMPUTER BASED LEARNING METHODS IN EFFORTS TO IMPROVE LEARNING THE ART OF MOTION PENCAK SILAT

by Iis Marwan

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Abstract

The purpose of this research is to improve the learning outcomes of pencak silat arts motion by applying methods of computer based learning (CBL) at the junior high school students.

This study uses the research and development (Research and Development) of the Borg and Gall (1983). Followed by a class-action research method of Kemmis and Tanggart (1988). on the subject of class VIII Junior High School I Tasikmalaya Academic Year 2012 / 2013 as many as 64 people (to classes). Techniques of data collection consisted of tests and observations. Tests used to obtain data about the pencak silat arts skills of motion. Rhile the observations are used to collect data relating to the activities of students and teachers for the learning activities.

Based on the result of this study concluded that the method of computer based learning (CBL) effectively used to improve the learning outcomes of pencak silat art, with the support of data : (1) Cycle I obtained an average result of 76.04 % (2) Cycle 2 obtained average Yield 80.73 % and (3) Cycle 3 obtained anaverage result of 89.06%.

Conclusions this study is the method of computer based (CBL) is used effectively to improve learning outcomes pencak silat arts movement.

Keywords : *learning, computer based learning methods, pencak silat arts motion*

INTRRODUCTION

Pencak Silat arts that developed cultural activities in Southeast sia in conturies such as Indonesia, Brunei, Philippines, Cambodia, Laos, Malaysia, Myanmar, Singapore, Thailand and Vietnam. And pencak silat arts are two words that are closely related.

Pencak word commonly used by the people of Java, Madura and Bali, while Silat word commonly used by people in other parts of Indonesia and Malaysia, Singapore, Brunei Darussalam and Thailand (Southern) and the Philippines. Pencak was game (skill) to defend themselves with parry skill. Pencak silat is the essence to physically defend themselves and can not be used to show (Maryono, 2002). Silat is a pencak silat attacking movement closely associated with the spiritual, so that started the instinct, drive the human conscience and submit to God Almighty.

Pencak silat is a method of self-defense to defend themselves from the dangers that threaten the safety and survival. As a method or a pencak silat art that was born and grew up in the midst of the social life of people of Indonesia. Pencak silat is strongly influenced by the philosophy, culture and personality of the Indonesian nation. Pencak silat is a pencak silat arts can be used s an educational medium, because many of the elements contained in it.

Pencak silat arts in formal education taught from primary education to secondary education and the material being taught and pencak silat arts category. In the category taught arts: the arts of movement, stance and double team moves. As one of the numbers game and to preserve the sport of pencak silat arts as sport native of Indonesia in school often do pencak silaat arts performances, (Marwan, 2011).

Give the pencak silat arts as a teaching material that is taught in secondary education,

the teachers are required to teach. However, the constraint in category learning pencak silat arts movement in the art of the teacher in demonstrating minimal or fatigue if they have to teach the parallel class.

To minimize this, the authors try to make the learning by using the computer. The term used computer based learning (CBL). Terminology use of computers in the field of learning is commonly used to describe computer applications in teaching. CBL is able to reach a broader learning strategies and complex, because CBL apply programmed learning approach, where students attempt to achieve competence, do learning activities through certain stages of learning (Simonson and Thompson, 1994).

The development of computer technology, has changed the concept of multimedia. In the 1960 era, the word acronym taxonomy of multimedia technology in education is not an unfamiliar term. At that time, mean multimedia collection / combination of various different media equipment used of presentations (Barker and Tucker, 1990). In 1990 Multimedia interpret transmitting text, audio and graphics in real time (Simonson and Thompson, 1994).

Gayestik (1992) describe as a multimedia interactive computer-based communication systems are capable of creating, storing, presenting and accessing the information in the form of text, graphics, sound, video or animation. Interactive multimedia has potential for use in learning with various strategies, especially as a learning tool for interactive tutorials and manuals (Phillips, 1997). Development of interactive multimedia learning refers to philosofi constructivism, which allows the explicit learning activities are still needed

Method of Computer Based Learning (CBL) in this study is a method where the process of learning or training to use computer tools that can display live motion technique, in the process, students learn the techniques of motion based on impressions of the computer, then exhibited at the time of the recorded motion engineering practice and compared with that shown in the computer.

Based on the background of the problems that have been described, the author of this research problem as follows: "is learning methods applying computer based learning (CBL) is used effectively to increase motion pencak silat arts skills?"

METHODS

In this study, researchers used a method of research and development of Bong and Gall (1983). The 7 steps are selected by the researchers for the development of learning using discs modifications are as follows: (1) needs analysis and literature review, (2) developing initial products, (3) expert evaluation and testing activities of small groups, (6) large group trials, and (7) revision of the final product.

Once the product is obtained in the form of recording arts pencak silat arts movement in the test then the product is applied at the junior high school students. Methods of action research as a way to address existing problems. Action research is a form of research studies that are reflective acts committed by the offender for rational steadiness of their actions in carrying out the task, and deepen understanding of the actions that he did, or a form of self-reflection study conducted by the partisans in social situation (including education) to improve the rationality and truth (Carr and Kemmis, 1996) this study also participatory and collaborative assessment process carried out in the form of cycle (cyclical) which consists of 4 phases: 1 planning, 2) take action, 3) observed, and 4) reflection.

One characteristic of Classroom Action Research (CAR) iss a cyclic or a measurable steps and planned in a cycle. So that the design of this research carried out in the form of the cycle. Cycle model proposed by Kemmis and Mc. Taggart (1992). Each cycle through the phases: planning, acting. Observing and reflecting. The same is stated by Suharsimi (2010) that in action research design panel consisting of the steps of planning, action, observation, and reflection.

Location, subject, and Data Research

The research was carried out on the sports field junior high school in Tasikmalaya 1 semester of academic year 2012/2013. Research subjects in class VIII F and H by the number of students as many as 64 people, consisting of 32 men and 32 women.

Data or information which is used as the source for analytical purposes in order to solve the problem of this research came from:

1. Result of discussions between researchers, observers (judges pencak silat arts as much as much as 3 person) and PE teachers and some students.
2. Activity shown by all students during the learning process in action research.

Instrument

Instrument in this study in accordance with the nature of the model research, researcher herself who is the main instrument (Nasution, 1992), using a variety of data collection tools, among others, data on changes in the behavior of students during the learning takes place. To collect the data, the researcher used the instrument are teacher and student activity sheets, field notes, interview notes and student activity sheets.

Data Collection and Analysis Techniques

The process of data collection is done through observations on each treatment in the process of learning pencak silat arts motion by optimizing the utilization traps computer, camera, and LCD. In addition to research who act as observers and assisted by three judges nationally certified pencak silat arts, assisted by fellow gym teacher (research partners) during the last learning.

The steps taken in data processing research include 1) data collection phase and categories of data, 2) phase data validation through triangulation (Hopkins, 1985), and the next step 3) phase interpretation of data collected after going through these stages.

Data are grouped in three parts: 1) the data obtained from analysis of the data sheet movement skills do pencak silat arts as an indicator of mastery of skills (psychomotor) and group data obtained from students' responses to the understanding of doing pencak silat arts motion through observation checklist / interview field notes as an indicator af cognitive, affective and observation variables. Furthermore, the data is processed with an average percentage technique to know the progress on each cycle.

Activities in each cycle

a. planning actions

Planning actions carried out by preparing a variety of purposes learning pencak silat arts motion to prepare lesson plan, student attendance list, the computer, digital camera, LCD (projector) and recorded arts movement as a master of pencak silat arts action and observation, judging art forms pencak silat arts movement.

b. implementation measures

During the activities of each cucle of learning activities that went according to plan where researchers, students and observer may be present 100% suggested that the activities can affect the result of the study, therefore students can be motivated to cooperate in the following activities so that the learning process can learning said to be maximal.

c. observation measures

Observations carried out using the assignment has been made, the implementation steps as observation sheet. Researchers and observer to observe the activities of teachers and students during the learning process and when students complete a final face-to-face learning. The things that needs to be observed is that students' positive activities include student attendance students who are actively working on the task of motion; students are diligently working on a discussion; students actively ask questions, and students are fast motion task.

In addition to learning activities, researchers and teachers should pay more attention to students' health. So that learning difficulties can be overcome, researchers should foster increased interest in learning it self.

Observations in accordance with the format that is set up and take down all the necessary things that occurred during the implementation of the action takes place. Assessing the results of the action in accordance with the format that has been developed.

d. Reflection Outcome Measures

Reflection of each cycle to be material to improve the performance of the next cycle:

1) To evaluate actions taken include the evaluation of the quality, quantity and timing of any kind of action.

2) Conduct a meeting to discuss the results of evaluation of learning scenarios and student worksheets.

3) Improving the implementation of evaluation of appropriate measures of evaluation results, to be used in the next cycle. Before the action has.

RESULTS

1. Description of Research Data in Cycle 1

Criteria for success in the process learning practice pencak silat arts motion set before the action has been set 87%. Data first cycle (the first) is the data capabilities of students after the first act. Data resulting from the first cycle (first) about ability of students to master the skills of pencak silat arts movements cognitive mean = 48 (75%) were the criteria, whereas the increase in mean affective = 47.75 (76.61%) and the men psychomotor criteria are = 53,5 (82.81%) were the criteria. The mean overall learning outcomes pencak silat arts movement in the first cycle shows there has been an increase in student learning outcomes due to implementing measures (computer based learning methods) of 76 or 76.04%. Meaning has not reached the minimum completeness.

However, conditions of learning outcomes in general are still on the criteria being mean. Recommendations from the results of this reflection is necessary to further actions in cycle 2 (two).

2. Description of research data in cycle 2

The mean learning outcomes in the first cycle is not yet describe the expected success rate, therefore it is necessary for the improvement actions 2 cycle. The mean results of learning pencak silat arts movement on cycle 2 showed a significant increase both in mean cognitive = 53 (82.81%) criteria very well, whereas affective mean 50.5 (79.29%) both criteria, as well as psychomotor mean = 55 (85.94%) both criteria.

Improved learning outcomes in cycle 2 showed an increase in student learning outcomes are highly significant in all domains of learning.

On cognitive happened pretty good improvement to mean = 7.81%, the average increase in the affective domains of 4.68%, whereas the the increase in the psychomotor domain of 3.1%.

Overall improvement in cycle 3 obtained mean average 80.73% meaning has not reached the minimum completeness.

3. Description of Research Data in Cycle 3

The mean learning outcomes in the first cycle is not yet describe the expected success rate, therefore it is necessary for the improvement actions 2 cycles. The mean results of learning pencak silat arts movement on cycle 2 showed a significant increase both in mean cognitive = 57 (89.06%) criteria very well, whereas affective mean 56.5 (88.28%) criteria psychomotor mean = 59 (92.19%) criteria very well. Overall improvement in cycle 3 obtained

mean average was 89.0% meaning minimum completeness.

N	indicator	Achievement

Improved learning outcomes in cycle 2 showed an increase in student learning outcomes are highly significant in all domains of learning.

On cognitive happened pretty good improvement to mean = 6.26% in the affective domain, the mean increase of 8.99%, whereas in the psychomotor domain at 6.29%.

Due in the second cycle of this whole realm already exceeded the target achievement of learning outcomes that have been established, it is enough to study the cycle of 2 (two). Achievement of learning outcomes art motion by applying methods of computer based learning (CBT) gained 88.73 score very well categorized.

The observation of student activity form cycle to cycle can be seen in table 1 below

		Cycle 1		Cycle 2		Cycle 3	
		sum	%	sum	%	sum	%
1.	**Cognitive aspects**						
	The ability of students to know and understand the techniques of pencak silat arts motion	48	75	53	82.8	57	89.06
2.	**Affective aspects**						
	Students interaction in the following pencak silat arts movement in groups	47	73.4	49	76.7	55	85.94
	Relationship with a student teacher for the learning activities pencak silat arts motion	48	75	50	78.1	57	89.06
	Motivation and enthusiasm in participating in learning pencak silat arts movement (complete tasks indeoendently or group work)	48	71.9	51	79.7	56	87.5
	The ability of students in lerning pencak silat arts motion with modified rules	50	78.1	52	81	58	90.62
		47.75	74.61	50.5	79.29	56.5	88.28
3.	**Psychomotor aspects**						
	Students' skills in performing arts techniques pencak silat arts motion	53	82.8	55	85.9	59	92.19
	Average	76.04		80.73		89.06	

Tabel 1

Student Activity Data Relevant to Learning

Tabel 2

Less Activity Data Relevant to Students Learning

No.	Indicator	Achievement					
		Cycle 1		Cycle 2		Cycle 3	
		sum	%	sum	%	sum	%
1.	Teachers do not pay attention to the explanation	12	18.75	8	12.5	3	4.69
2.	Chatting with friends	15	23.44	7	10.94	4	6.25
3.	another task	13	20.83	6	9.38	4	6.25
	average	20.83		10.94		5.i73	

Tabel 3

Student Understanding of Daata Motion Arts and Pencak Silat Student Mastery

No.	indicator	Achievement		
		Cycle 1	Siklus 2	Siklus 3
1.	The average value of pencak silat arts motion	76.04	80.73	89.06
2.	Syudents who have completed	52	57	59
3.	Students who have not completed	12	7	5

Based on Tabel 1, it seems that the increase in the average score of the first cycle, the second nd third there was an increase (76.04%, 80.73% and 89.06%) Furthermore, the data are less relevant student activities with learning seen in table 2

Based on table 2 above shows that the activity is less relevant to student learning activities in second cycle decreased compared with unity cycle is equal to 9.89%, and form the second cycle to third cycle has decreased by 5.21%, overall decline of 15.10%

Based on table 3 above, the average overall mastery of pencak silat arts movement has increased from cycle 1 to cycle 2 is 9.13%, as well the percentage of students who achieve mastery learning increased from cycle 1 to 2 16.39%.

From the research data of this class action is analyzed in several things that by using computer based learning methods seen the students are very enthusiastic in performing arts techniques pencak silat arts movement. Shown to increase student learning outcomes that can be categorized mastery of pencak silat arts motion is attached.

DISCUSSION

Computer based learning method is a method of exercise using the computer, where students see the element of motion (movie) next activity while recorded, then repeated and compared with the motion of the computer element. Learning implies a change in the individual as a result of some intervention, it may be viewed as an outcome or as a process (Belkin and Gray, 1977).

Learning computer based learning as a teaching process performed directly involving computers to present materials in an interactive learning model to provide and control the learning environment for each individual student (Splittgerber and Stirzaker, 1984). This definition is consistent with the claim that Steinberg is all computer based learning application for the computer that has the aspect of individual, interactive, and landing (Steinberg, 1992)

Judging from what the role played by the computer program, Merrill (1996) specifically states that the CBL is the use of computers to aid in learning activities. Ot is generally used with reference to the application of tutors, such as drill and practice giving, tutorials, simulation, and games. This definition is consistent with the tailor in Merrill (1996). Which states that all computer application in education can be classified as a tutor, tool or tutee.

Chee and Wong (2003) stated that the traditional multimedia refers to the use of ultiple media, while multimedia in contemporary times refer to the combined use of multiple media in the presentation of learning through computers

The mechanistic models of the mind of the behavioral era has given way to the logical-computational models favored by artificial intelligence and cognitive science theorists. (McLellan, 1996).
Don Tapscott, in his book growing up digital: the rise of the net generation, argues that we are now in a digital era of learning. According to Tapscott, a transformation in learning is taking place from what he labels "broadcast" learning to "interactive" learning. No longer are today's generation of learners satisfied in being the passive recipients of the traditional teaching process, rather, they want to discover it for themselves by becoming interactive with the learning. The net generation children using global learn (a web site). Are beginning to process information and learn differently than the boomers before them. New media tools offer great promise for a new model of learning – one based on discovery and participation (Tapscottt,1998)

These results reinforce the notion of learning according to singer (1980) is a relatively permanent change in behavior caused by past practice or experience in a given situation. According to Bigge (1982) and Singer (1980) that, learned as a lasting change in the lives of individuals and is not proceded by a legacy born or descendants. Furthermore Winkel (1996) describes learning is a mental activity / psychic that takes place in a active interaction with the environment, which result in changes in the knowledge, understanding, skills and attitudes values. The change is relatively constant. The sense clarified by Djamarah (1999) that, learning is a process of individual effort made to obtain a new behavior changes as a whole, as a result of the individual's own experience in the interaction with the environment.

Furthermore Lutan (1988) explain that learning is a change in behavior as a result og the experience, not because of the influencer of heredity or maturity. Expected changes, is attached or permanently. Then Hurlock (2002) explain developmental learning is derived from the practice and effort. The same thing described by Slameto (2010) is business process that made a person to obtain a new behavior changes as a whole, as a result of his own experience in the interaction with the environment.

Learning bis a deliberate process to obtain either change behavior or skills and increasing knowledge is relatively fixed or last a long time, as a result of individual experience In the interaction with the environment regarding the cognitive, affective and psychomotor.

The learning process of physical education or sport cannot be separated from movement or motor activity, because it was the process of learning motor skills learning. Reinforcement means any condition, if followed by aa response increase the chances that the response increase the chances that the response will occur again when given the same stimuli (Oxendine, 1984). Romiszowski, (1988) learning to learn that motion is realized throught the response, the response muscular, which generally in gestures or body parts.

Schmidt (1992) suggested that motor learning is a process of improvement of motor coordination abilities, through the optimization of external factors and the requirement that aims to gain the skills, capabilities and particular behavior. Sugiyanto (1993) suggest that the study of motion is learned that manifested through muscular responses to find out more about learning motor skills, should be examined first of some of the concepts of experts on motor learning or the learning of option. Kiram (2001) cites some expert opinion as follows: Gagne and Briggs (1979) suggested that motor learning is a change in behavior or changes in skills that can last for a certain period and not from the growth process.

Level a mastery of motor skills is a specific task or group of task is limited. Means of motor skills development control physical movements through nerve and muscle coordination. (Hurlock, 1992).

Learning motion is a set processes associated with practice or experience leading to changes in a relatively permanent in one's ability to slow that skilled movements.

Johnson & Johnson (1992) stated that the approach to learning through experience aimed at preparing the cognitive structure, modify attitudes, and improve the skills of actors leaner. Method of computer based learning (CBL) may significance when learners perform a series of task of teaching (motion task) as contained in the programs on the computer.

Ideally, we need a united computer based environment that allows us to integrate different kinds of tools easily. Distinctions among the view categories of tools may not be important as users can within an intergrated environment (Hang, 2001).

To reiterate, instead of regarding the different learning theories as discordant, we rather adopt the instructional approaches derived from each of the learning theories and situate them in the appropriate instructional context based on the learning objectives. We strongly advocate that teachers are pedagogical engineers with the responsibility to plan a lesson (s) with the most relevant instructional approaches and technologies at his or her disposal. (Hang, 2001).

CLOSING

Based on the findings of action research can be concluded that the application of methods of computer based learning (CBL) may improve the ability of students to aster the skills of pencak silat arts movement.

Findings and conclusions based on the result of the study researchers suggest that the learning process can use the methods of computer based learning (CBL) as one of the alternative in the process of delivering learning motor skills.

REFERENCES

Barker, J., & Tucker, R.N. (Eds). 1990. *The Interactive Learning Revolution Multimedia in Education and Training.* London: Kogan Page.

Belkin, Gary, S., and Gray Jerry, L., 1977. *Educational Psuchology: An Introduction.* Dubuque Iowa: Wm.C. Brown Company Publishers.

Bigge, Morris, L., 1982. *Learning Theories for Teachers.* New York: Harper & Row.

Borg, W. R. & Gall, M.D. 2003. *Educational research: an introduction (7 ed.).*New York:Longman, Inc.*th*

Carr, Wilfred & Kemmis, Stephen, 1996. *Becoming Critical, Education, Knowledge and Action Research,* Deakin University Press. Melbourne.

Djamarah, Syaiful Bahri 1999. *Psikologi Belajar,* Jakarta, Rineka Cipta.

Hung, David, 2001. *Theories Of Learning and Computer-Mediated Instructional Technologies.* ISSN 0952-3987 print/ISSN 1469-5790 online © 2001 International Council for Education Media http://www.tandf.co.uk/journals

Hurlock, Elizabeth. 2002. *Psikologi Perkembangan,* Edisi 5, Jakarta:Erlangga Kelia.

Hopkins, David, 1985. *A Teachers Guide to Classroom Research,* Philadelphia:Open University Press.

Johnson, David W. and Roger T. Johnson. 1991. *cooperative in The Classroom.* Innerosta: A Publication of interaction Book Company.

Kemmis and Mc. Taggart, 1992. *The Action Research Planner.* Dekain University, Vic.

Kiram, Yanuar, 2000. *Metode Pembelajaran Keterwakilan Motorik Dasar Bagi Anak Usia SDN 2 Jingkalang, Jakarta,* Pusat Kesegaran Jasmani Depdiknas.

Lutan, Rusli 1988. *Belajar Keterampilan Motorik: Pengantar Teori dan Metode,* Jakarta, Depdikbud Dirjendikti P2LPTK

Maryono, Oong, 2008 *Pencak Silat Merentang Waktu.* Yogyakarta:Benang Merah.

Marwan, Iis, 2011. *"Teori dan Pencak Silat", Diktat,* Tasikmalaya, PJKR FKIP Universitas Siliwangi.

McLellan, Hilary. 1996. *Being Digital: Implications for Education.* Educational Technology

Merril, Paul F. et al., 1996. *Computer in Education.* Boston: Allyn and Bacon,1996.

Nasution, 1992. *Berbagi Pendekatan dalam Proses Belajar dan Mengajar,* Jakarta: Bumi Aksara.

Phillips, Rob. 1977. *The Developer's Handbook to Interactive Multimedia.* London: Kogan Page Limited.

Romiszowski, 1988, *The Selection and Use of Instructional Media, United States, Nichols Publishing.*

Schmidt, Richard, A., 1991. *Motor Learning and Performance : Human Kinetic Application to Motor Skill and Movement Behaviors.* New York: Macmillan Publishing Co.Inc.

Singer, Robert, N., and Dick, W. 1980. *Teaching Phisical Education:* A System Approach. Bostoon;Hougton Miflin Company

Simonson, M.R dan Thomson , A, 1994. *Education Computing Foundations* (2nd ed). Columbia, OH:Mer-ril.

Slameto, 2010. *Belajar dan Faktor yang Mempengaruhinya,* Jakarta, Rineka Cipta

Sunaryo, Soenarto. 2005. Pengembangan Multimedia Pembelajaran interaktif matakuliah tata hidang. *Inotek: Jurnal Inovasi dan aplikasi teknologi. Volume 9, Nomor 1, Februari 2005.*

Arikunto, Suharsimi, Suhardjono dan Suparrdi, 2010. *Penelitian Tindakan Kelas,* Jakarta, Bumi Aksara.

Splittgerber, Frederic L. and Norbert A. Stirzaker. "Computer Tecnology for Administractive Information and Intructional Management in school Districts", *Educational Technology,* Volume XXIV Number 2, February 1984.

Steinberg, E.R. 1991. *Computer-Assisted Instruction : A Synthesis Of Theory, Practice, And Technology.* New Jersey : Lawrence Erlbaum Associates.

Sugiyanto, 1993. *Pertumbuhan dan Perkembangan, Bahan Penataran Bulu Tangkis Tingkat Dasar Seluruh Indonesia.* Jakarta PB PBSI.

Tapscoot, Don. 1998. *Growing Up Digital: The Rise Of the Net Generation.* New York: McGraw Hill

Tan Seng Chee & Angela F. L. wong (Eds.) 2003. *Teaching and learning with technology: An asia-pacific perspective.* Singapore: Prentice Hall.

Oxendine, Joseph B., 1984. *Psycology of Motor Lerning,* Englewood Cliffs : Prentice-Hall, Inc.,

Winkel, J. Santrock, 2007. *Psikologi Pendidikan (Edisi ke-Dua)* Jakarta, Kencana Prenada Media Grup.

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