Training Model of Pencak Silat Learning based on Android Module Design

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Abstract

The purpose of this study was to develop a learning model for pencak silat based on android module design for junior high school (SMP) students. This research is a research and development (research and development) from Gall & Borg which is used to develop a new product. Based on the results of the evaluation analysis of pencak silat experts, media experts, physical education teacher experts, it is known that the total number of respondents' scores (∑X) is 55 and the total number of respondents' scores (∑X) is 60 so that the percentage is 91% and the criteria determined and can be determined. it is said that Providing examples of movements so that they are easy to understand meets the VALID criteria (80% - 100%) so that they can be used in the research process. It was concluded that the development of the Android module-based pencak silat drop learning model for junior high school students was very effective in learning physical education. The percentages obtained from the data analysis are 85% and 91%, respectively. This developed product aims to help improve the achievement of physical education learning objectives, especially the material for the fall of pencak silat in junior high school students. This model is made based on the level of needs of students and teachers in the movement activity of this pencak silat drop technique is still difficult to learn. The results of the second stage of the trial using this model turned out to produce 91% of the expected target, meaning that this model was effective in meeting the learning needs of pencak silat drop in junior high school students.

I. Introduction

Education is one of the efforts to improve the ability of human intelligence, thus he is able to improve the quality of his life (Saleh and Mujahiddin, 2020). Education is a conscious effort made by adults for human maturity which is carried out in the process of teaching and learning activities, both formally and informally. Education is expected to be able to answer all the challenges of the times and be able to foster national generations, so that people become reliable and of high quality, with strong characteristics, clear identities and able to deal with current and future problems (Azhar, 2018). Physical education is more focused on the physical development and skills of students by using sports facilities to achieve national education goals. The subjects taught at every school level are physical education, sports, and health which are one of the vehicles to achieve national education goals. Physical education goals are inseparable from the goals of national education, including to increase the cognitive, affective, psychomotor, and social values of students (Bangun, 2012). With the material for pencak silat in physical education subjects, it will be

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very helpful in achieving national education goals, because in pencak silat students are not only required to be able to master the psychomotor aspect but are also required to be able to master the cognitive, affective and social values. This shows that the existence of pencak silat material in physical education is in accordance with the achievement of existing national education goals.

With the inclusion of pencak silat into Junior High School (SMP) subjects, it brings an important role in the formation of character, spiritual and mental spirituality for adolescents. With it can reduce the moral crisis that is hitting the youth of our nation. Based on K13 Junior High School (SMP), the material for pencak silat is taught from class VII to class VIII and XI with continuous material with various basic techniques in pencak silat. The basic techniques in pencak silat include: (1) stances; (2) tide attitude; (3) step pattern; (4) defense techniques (defense and evasion); (5) attack techniques (punches, elbows and kicks); (6) slam/drop technique.

However, the facts on the ground show that many junior high school (SMP) teachers do not teach pencak silat material to their students. This condition can be caused by several factors including the inability of the teacher to provide pencak silat material, a teacher not mastering these skills so that teachers find it difficult to teach the material, the limitations of learning media that make it easier for teachers to deliver the material, and the lack of learning resources. Another reason teachers do not teach pencak silat material can also be caused by teachers who feel they are not able to convey pencak silat material to their students so many teachers choose not to teach the material. The unprofessionalism of a teacher is also one of the reasons why the material for pencak silat is not taught in Junior High Schools (SMP) and Senior High Schools (SMA). In addition, the lack of existing learning resources also causes learning outcomes that are less than optimal.

This is reinforced by the minimal number of books, modules, and CDs for learning pencak silat which are able to facilitate students in mastering competencies in the form of behavior, attitudes and skills. So that most students will find it difficult to understand the material. Of all the possible causes of the problem, it is the thing that causes the lack of understanding of the material for pencak silat which is owned by most junior high school (SMP) students. Based on the existing problems, the researcher wants to help overcome the problem, one of which is by adding learning resources in the form of modules. This module can also be used by students studying distance learning or home schooling. Therefore, it is necessary to conduct research and development to produce these products and can be used to overcome existing problems. Therefore, the researcher will conduct a research and development entitled Development of a learning model of pencak silat drop based on android module design for Junior High School Students (SMP).

II. Review of Literature

2.1 The Nature of Development

Development includes a type of research known as Research and Development (R&D) which is then interpreted as "research and development". Researches that are not R&D does not produce objects, while research and development has meaning which is focused on a process to produce objects that can be seen or touched. Development is an engineering process of a series of elements that are arranged together toform a product. Research and development is a type of product-oriented research. Through research and development, it is hoped that it can bridge the research gap that is more testing theory towards producing products that can be used directly by users. In addition, research and development is a type of research that is being increasingly used in solving practical

problems in the world of research, especially education and learning research (Priyanto, 2009).

Development research as a process for developing and validating products to be used in education and learning. Study development is an effort to develop and produce a products in the form of materials, media, tools and or learning strategies, are used to address learning in the classroom/laboratory, and not to test theory. A similar understanding was also put forward by Borg & Gall (1983) that, development research is an effort to develop and validate products to be used in education.(Tegeh & Kirna, 2013)

Sugiyono (2008:407) in his book states that "research and development is research that is used to produce certain products, and test the effectiveness of these products." Research and development methods or in English Research and Development are research methods used to produce certain products, and test the effectiveness of these products. Therefore, research is needed to test the effectiveness of these products.

2.2 Android Nature

The Android operating system has various definitions of Android by several experts, one of which Safaat (2012) states that Android is a Linux-based mobile device operating system. Meanwhile, according to J.F. DiMarzio (2008), Android is a Java-based operating system that operates on the Linux 2.6 kernel. Android is not a programming language but Android is an environment to run applications. Android is a Linux-based operating system designed for touch screen mobile devices such as smartphones and tablet computers. Android was originally developed by Android Inc., with financial support from Google, which later purchased it in 2005. 30

2.3 Module

As one of the printed teaching materials, the module is a learning package related to one unit of learning material. With the module students can reach and complete their study materials by studying individually. Learners cannot proceed to the next unit of study before completing the study material completely. With the module students can control the ability and intensity of learning. Modules can be studied anywhere. The duration of using a module is not certain, although the module packaging also states the time it takes to learn certain materials. However, the flexibility of students to manage this time is very flexible, it can be a few minutes and it can also be several hours, and it can be done separately or given variations with other methods.

According to AECT (Association of Educational Communications and Technology (AECT, 1977) learning resources are everything or resources that can be utilized by teachers, either separately or in combination, for the benefit of teaching and learning with the aim of increasing the effectiveness and efficiency of learning objectives. Percival and Ellington explain learning resources from the manufacturing sideis a set of learning materials or situations that intentionally or unintentionally deliberately created so that students individually and or collectively the same can learn.9 So basically learning resources are everything or anything resources that can be utilized by teachers and students, both separately or in a combined form for the benefit of activities learning with the aim of increasing effectiveness, efficiency, ease and fun for continuous learning.(Abdullah, 2012)

2.4 The Essence of Pencak Silat

The ancestors of the Indonesian people have had ways of self-defense aimed at protecting and defending their lives or groups from natural challenges. They create martial arts by imitating the movements of animals in the natural surroundings, such as the movements of monkeys, tigers, snakes, or eagles. The origins of martial arts in this archipelago may also have developed from the skills of indigenous Indonesian tribes in hunting and fighting using machetes, shields, and spears, for example, as in the tradition of the Nias tribe which until the 20th century was relatively untouched by outside influences.(Dr. Johansyah Lubis, 2016)

Silat is thought to have spread in the archipelago since the 7th century AD, but its origin has not been determined with certainty. The great kingdoms, such as Srivijaya and Majapahit, are said to have great warriors who mastered martial arts and could gather soldiers whose skills in self-defense were reliable. (Agung Nugroho, 2001) aims for people to learn martial arts, among others, to excel as athletes through martial arts to maintain health, to participate in professional fights and so on.

In practice, the martial art of silat is a symbol of 4 meanings aims to build community productivity people. Productivity is built on each other continuous and consistent. There are 4 main aspects in silat activities, namely:

a. Mental Spiritual Aspect: Pencak silat build and develop people body and noble character or character the highest level of a person. Para martial arts master and master ancient times to achieve the highest level must passstages of meditation, asceticism, or aspects other mysticism adapted to period of trust at that time for reach the highest level of knowledge.

b. Aspects of Cultural Arts: Culture and the art of pencak silat is wrong one very important aspect. The term Pencak generally refers to describe the art form of pencak dance silat, with music and fashion traditional. This is meant so that silat can be liked by the community and is fun to learn.There is no element of violence but can improve physical abilities and a person's mentality is reflected in the result of silat that functions as an art culture.

c. Aspects of Self-Defense: Trust and self-restraint is very important in mastering self-defense in pencak silat. The term silat, tends to right on the aspect of technical ability martial arts martial arts. Ability this technique is created from a combination of elements culture, environment and arts created by the founder of pencak silat and adapt to the character of the technique itself. The technique is created according to character so that understanding and appreciation of the character can produce a martial arts good martial arts.

Sport Aspect: This means that the physical aspect of pencak silat is very important. Pesilat tries to adjust mind with body. Sport in silat is the main goal in improving physical condition somebody.(Mardotillah & Zein, 2017)

III. Research Methods

This research uses the Gall&Borg research and development model that can be used to develop new and procedural products. Developed on the basis of several stages systematically tested in the field, evaluated and refined, so that the objectives of Gall & Borg development research are to meet specified and agreed criteria such as effectiveness, quality or standards in research.
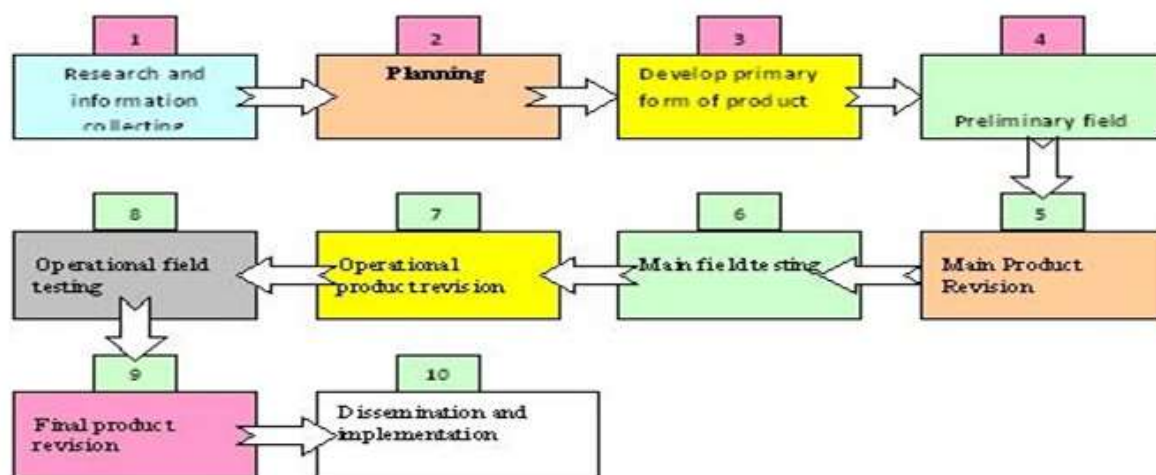
Figure 1. Borg & Gall Development Model (Sugiono, 2006)

IV. Results and Discussion

4.1 Phase I Trial Data Analysis

Based on the results of the evaluation analysis of pencak silat experts, media experts, physical education teacher experts, it is known that the total number of respondents' scores ($\sum X$) is 51 and the total number of respondents' scores ($\sum X$) is 60 so that the percentage is 85% and the criteria determined and can be determined. it is said that Providing examples of movements so that they are easy to understand meets the VALID criteria (80% - 100%) so that they can be used in the research process.

4.2 Phase II Trial Expert Data Analysis

Based on the results of the evaluation analysis of pencak silat experts, media experts, physical education teachers, it is known that the total number of respondents' scores ($\sum X$) is 55 and the total number of respondents' scores ($\sum X$) is 60 so that the percentage is 91% and the criteria determined and can be determined. it is said that Providing examples of movements so that they are easy to understand meets the VALID criteria (80% - 100%) so that they can be used in the research process.

4.3 Product Improvement

The calculations in the table can be concluded that the development of the Android module-based pencak silat drop learning model for junior high school students is very effective in learning physical education. The percentages obtained from the data analysis are 85% and 91%, respectively. This means that there are still some weaknesses that must be corrected in future research, namely around 9% of the target has not been achieved.

4.4 Product Discussion

This developed product aims to help improve the achievement of physical education learning objectives, especially the material for the fall of pencak silat in junior high school students. This model is made based on the level of needs of students and teachers in the movement activity of this pencak silat drop technique is still difficult to learn. The results of the second stage of the trial using this model turned out to produce 91% of the expected target, meaning that this model was effective in meeting the learning needs of pencak silat drop in junior high school students. The subjects taken in the study were schools that did

not yet have adequate sports infrastructure. This gives a view that when this model is applied in schools that have complete sports facilities and infrastructure, the implementation will be better and more perfect.

After reviewing some of the weaknesses that need improvement according to the above, this product can be conveyed some of the advantages of this product, including:

a. Students are more active in following the learning process while observing and using the android module application.
b. The repertoire of student movement remains on the multilateral concept, especially when there is slow movement, students will be able to observe and observe movements outside the subject or at home with their respective students' androids.
c. Learning the fall of pencak silat can be applied and is very suitable for the characteristics of junior high school students.
d. Students look happy and enthusiastic
e. Techniques are carried out from easy to difficult
f. The level of competition is high so that it makes students more enthusiastic.

V. Conclusion

Based on the data obtained, from the results of field trials and discussion of research results, it can be concluded that:

1. That the learning model of pencak silat based on the android module of students can learn effectively and efficiently.
2. That the learning model that researchers have developed, students are more motivated and active in participating in the learning process.

Implication

If the development of the Android module-based pencak silat drop learning model for physical education is carried out for junior high school students, it will contribute both to the teaching and learning process effectively and efficiently. The use of the module tools embedded in the smartphone in this model is better seen, for example: smartphones that can be carried anywhere by students by observing the movement of the pencak silat drop technique with the needs of students and supporting field facilities so that it is easier to apply in schools and even anywhere.

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