

Android-based high school physical learning model

Sari Mariati^{1*}, Yani Warti¹, Suci Nanda Sari¹, Desi Purnama Sari¹

¹Coaching Department, Faculty of Sport Science, Universitas Negeri Padang, INDONESIA.

Article Information:

Submitted: 2 November 2024; Accepted: 7 December 2024; Published: 27 December 2024

ABSTRACT

Problems: This research is based on the limited teaching and learning activities of physical education in schools, because the current pandemic situation still limits student learning activities in schools. **Purpose:** This research aims to produce a learning product for students as well as in the form of materials/textbooks and an android application that contains physical education materials to create more effective and efficient learning. **Methods:** The type of research method used in this study is research and development using the ADDIE Model. **Results:** This android-based PJOK learning model in the initial trial stage got a practicality percentage of 80% with the category "Practical". Then at the field trial stage, the percentage of practicality was 85% with the category "Very Practical". **Conclusion:** This shows that media products increase students' interest and motivation to learn

Keywords: Physical Education Learning Model, Android App

 <https://doi.org/10.24036/patriot.v%vi%i.1137>



Sari Mariati

Coaching Department, Faculty of Sport Science, Universitas Negeri Padang, INDONESIA.

Email: sarimariati@fik.unp.ac.id

Introduction

The current condition of learning patterns in schools that has changed by using offline and online patterns alternately depending on government regulations has caused a lack of motivation for students to carry out movement activities and teaching and learning in practice in the field. One of the teachers who is a member of MGMP PJOK Padang Panjang said, for students to learn PJOK practice at home is very difficult to condition, because they tend to feel comfortable with learning theory that they only sit in front of their cellphones or laptops, this is certainly a concern for researchers which is in accordance with the government's expectations that they can control education online. However, for PJOK subjects, it becomes a polemic and a big obstacle because of its practical nature. Online learning is an online teaching and learning process. Learning that is carried out online makes an educator make a textbook digitally. One of the textbooks digitally can take advantage of android. The presentation of android-based learning can be more interactive. This online learning process has no access restrictions, this is what allows the teaching and learning process to be carried out for a longer time (Suhery et al., 2020). The implementation of online learning without face-to-face but online requires an internet network (Aryanti, 2021). The use of android that everyone can access easily and at any time. The research on the development of Android-Based Textbooks is supported by research conducted by Kuswanto (2020) and Handayani, A. S., & Lindawati, L. (2019) and Gian Dwi Oktiana (2015) The results of the study are said to be very feasible. This can show that the use of textbooks can help students in learning the learning materials they are taking. The use of android-based textbooks is one of the features that can be used as a learning resource for students, android-based textbooks can be an alternative medium for the teaching and learning process. Based on observations and interviews with lecturers in the penjas learning planning course, there is no android-based textbook in the learning process. Textbooks are materials or subject matter that are systematically arranged, which teachers use in the learning process. Therefore, an android-based learning model is needed so that learning resources can be easily accessed, and improve learning and learning activities.

Physical education, sports and health taught in schools has a very important role, namely providing opportunities for students. To engage directly in a variety of learning experiences through selected physical, exercise, and health activities that are carried out systematically. However, a deep and thorough understanding of the concept alone is not enough to be able to teach physical education effectively. Teachers must also understand the learning model. The actual teaching model is really models of learning, Bruce and Marsa (1996). They define the learning model as organizing an environment that can lead students to

interact and learn how to learn. Because each student is unique in having a diverse way of learning according to their development and historical learning background, the learning models that develop are very diverse. Bruce and Marsha (1996), revealed no less than 18 learning models, these models can be selected or combined to be applied in the learning process of physical education.

The learning model refers to the learning approach to be used, including the teaching objectives, stages in the learning activities, the learning environment, and classroom management. The purpose of using the learning model as a strategy is how learning is carried out can help students develop themselves in the form of information, ideas, value skills and ways of thinking in increasing the capacity to think clearly, wisely and build social skills and commitment (Joice & Wells). The learning model has four special characteristics, namely, (1) Logical theoretical rationale compiled by its creators or developers. The learning model has a theory of thinking that makes sense. This means that creators or developers make theories by considering their theories with real reality and not fictitiously in creating and developing them; (2) The foundation of thinking about what and how students learn (learning goals to be achieved). The learning model has a clear goal of what will be achieved, including what and how students learn well and how to solve a learning problem; (3) Teaching behaviors that are necessary for the model to be implemented successfully. The learning model has the necessary teaching behavior so that what has been the ideal of teaching so far can succeed in its implementation; and (4) The learning environment is necessary for the learning objectives to be achieved. The learning model has a conducive and comfortable learning environment, so that the learning atmosphere can be one of the supporting aspects of what has been the learning goal. (Trianto, 2010).

The results of the research by Resty et al (2014) were found to be the results of the analysis of research data, namely the implementation of penjas learning models in improving the ability of teachers to choose and develop learning strategies in teachers of health care teachers of SMP PGRI Pangkalan Tegalwaru Karawang District has not been implemented into the learning process so that the improvement of teachers' ability to choose and develop learning strategies has not been optimal. 1. The application of the learning models of health services by health care teachers at PGRI Pangkalan Junior High School, Tegalwaru Karawang District, can be stated to have not applied the health care learning model model in the learning process in the field. With the fact that teachers have not been able to mention the types of learning models and explain their application in the field. So that teachers have not been able to apply and present learning materials in a typical way to students. 2. The ability of health care teachers in choosing and developing learning strategies at SMP PGRI Pangkalan Tegalwaru Karawang District can be stated that teachers have quite good abilities in choosing and developing learning strategies in the field. Teachers know learning organizing strategies and know the terms in learning strategies.

Method

This research is a development research using the ADDIE Model. The ADDIE Development Research Model as the name implies is a model that involves the stages of model development with five steps/phases of development including: *Analysis, Design, Development or Production, Implementation or Delivery and Evaluations*). The ADDIE model was developed by Dick and Carry in 1996 to design a learning system (Mulyatiningsih, 2016). In the product development steps, ADDIE's development research model is considered more rational and more complete. Mulyatiningsih (2016) stated that this model can be used for various forms of product development in learning activities such as models, learning strategies, learning methods, media and teaching materials. ADDIE Development Research Model. The research was carried out in October 2022, the population of this study was SMA/MAN Padang Panjang City, while the research sample was students in grade XII MAN 3 Padang Panjang City. at MAN 3 Padang Panjang City.

Result

The research and development carried out by the researcher is to develop an android-based physical education learning model, the learning application is named "SSPJOKSMA" made using the Appypie application and converted into the google play store. The application consists of several components, namely, the initial view of the application, the main menu, the introduction to the application, the application learning video, and PJOK material for high school in the form of an e-book. The android-based PJOK learning model that has been developed is then validated by material experts, media experts, learning experts and reviewed by 10 students who were randomly selected in the initial trial). The assessment conducted by media experts obtained a percentage score of 70% in the range of 61-80% with the category valid/suitable for use that needs revision, material experts obtained a percentage score of 75% in the range of 61-80% with the category valid/suitable for use that needs revision, learning experts obtained

a percentage score of 75% in the range of 61-80% with the category of valid/suitable for use. After the initial trial stage, the media product was revised based on the results of comments and suggestions at the initial trial stage, namely adjusting the application information referring to grade 11, improving the introduction to the application and sorting out the learning videos to be displayed and the bibliography menu related to the reference sources taken. After the revision of the product, the researcher conducted a field trial which was carried out in class XI MAN 3 Padang Panjang City with a total of 22 students. The purpose is to find out how students respond after using the android-based PJOK learning model application. At the field trial stage, a practicality percentage score of 85% was obtained in the range of 81-100% with the category of very practical. Furthermore, the final product revision based on students' comments and suggestions at the field trial stage is to add a question practice menu.

Discussion

From the findings of the research that has been carried out, the learning model made can help students in maximizing their physical activities at school, especially by being loaded in an android application which is indeed very helpful for students in using it through smartphones and can be done anytime and anywhere. After conducting research, it is very visible that students are very enthusiastic in participating in the learning given, this proves that models are varied and attract the attention of students so that it is hoped that in the future the learning goals of physical education can be achieved well and for future research will be made more interesting learning models in other levels of education.

Conclusion

The development of an android-based PJOK learning model was made using the Appypie application and converted to the google play store. The level of validity of the media is worth using. The results of students' responses to android-based interactive learning media in the initial trial obtained a score of 80% with the category of "practical" and in the field trial obtained a score of 85% with the category of "very practical". This shows that the android-based PJOK learning model product makes students more interested and motivated for PJOk learning at school.

References

- Suhery, S., Putra, T. J., & Jasmalinda, J., 2020, Socialization of the Use of Zoom Meeting and Google Classroom Applications for Teachers in Sdn 17 Matawai Padang Selatan. *Journal of Research Innovation*, 1(3), 129-132.
- Kuswanto, C. W., & Pratiwi, D. D. (2020). Development of Physical Education Teaching Materials for Early Childhood Based on Thematics. *Al-Athfal: Journal of Children's Education*, 6(1),55-68.
- Aryanti, S. (2021). The Utilization of Google Classroom in Online Learning for Students. *Strategies for Improving Empowered Superior Human Resources* , 23.
- Giartama, G., Hartati, H., & Aryanti, S. (2020). Multimedia For Course Basketball Working Expertise. In *International Conference On Education and Sports Science 2020 (INCESS 2020)* (Vol. 1, No. 1,pp. 49-52)
- Trianto. 2010. *Integrated Learning Model, Concept, Strategy and Implementation in KTSP*. Jakarta: Bumi Aksara.
- Resty Gustiawati, Fahrudin, and Muhamad Mury Syafei, et al. 2014. Implementation of Penjas Learning Models in Improving Teachers' Ability to Choose and Develop Learning Strategies for Health Workers. *Journal of Scientific Solutions* Vol.1 No. 3 September - November 2014: 33-40
- Hendi Marvin. 2018. DEVELOPMENT OF PENJAS-PEDIA APPLICATION ON ANDROID-BASED SMARTPHONES AS A LEARNING MEDIUM FOR PHYSICAL EDUCATION FOR GRADE VII AT SMPN 1 BANGKALAN. *SATRIA Journal Of "Sports Athleticism in Teaching and Recreation on Interdisciplinary Analysis"* Volume 1, Number 1, November 2018 Pages 28 – 33 ISSN : 2621-1890 (Online)
- Lusiana dan Hartati. 2021. Analysis of the need for development of textbooks for android-based physical education learning planning course. *Prosiding Seminatr Nasional Pendidikan Jasmani dan Kesehatan*. Palembang