

## DEVELOPMENT OF A VOLLEYBALL LEARNING MODEL FOR STUDENTS DURING THE COVID-19 PANDEMIC

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### Abstracts

This study aims to provide a valid, practical, and effective independent volleyball learning model for students during the COVID-19 pandemic. This research is research designed in two stages. The first stage is needs analysis, design projection, and developing an independent volleyball learning model for students based on the draft program. The validity to practicality test is carried out. In the second stage, the effectiveness test was carried out through field testing of the independent volleyball learning model during the Covid-19 pandemic. This research uses a research and development approach, namely the ADDIE development model. The novelty emphasized in this development is creating a product as an independent volleyball learning model for students during the COVID-19 pandemic, which is packaged into a learning model book and a separate volleyball learning tutorial video.

**Keywords:** Volleyball, Learning Model, Covid-19

### INTRODUCTIONS

Volleyball learning, a compulsory course measured, structured, and planned by following the applicable rules, aims to form a healthy body and spirit. Until now, sports have made a positive contribution to improving health. In addition to making the body fitter, sports are oriented toward achieving achievements as the times develop. In its development, many sports courses excelled, one of which was the sport of volleyball.

Volleyball is one of the most popular sports worldwide, including in Indonesia. Similar to other sports, this sport is also expected to continue to be able to make the nation and state proud at national and international events (RIFKI et al., 2022; Syafrizar & Rifki, 2017). The COVID-19 pandemic has had many impacts on the sports sector, including on the physical condition of athletes. Without a good physical condition, a person will have difficulty adjusting to a game that requires excellent physical condition. The athlete's body structure supports this excellent physical condition.

Almost all sports have a limited face-to-face learning process; students learn 50 percent online and 50 percent offline. Counting and publishing online and offline learning recommendations, learning is carried out indirectly through online learning platforms such as Google Form, Google Classroom, Zoom, e-learning, and communication media such as WhatsApp (Mutia, 2013). This condition is exacerbated by the policies of various country's health authorities who take extraordinary measures to set rules to close multiple public facilities, including fitness centers and sports venues, to all sports universities, resulting in fewer opportunities for students to carry out face-to-face learning to maintain their physical condition (N et al., 2020). The Indonesian government is no exception, which has also ordered the implementation of various competitions to national sports events to be held without spectators while still following health protocols as an emergency measure to prevent the spread of this

virus infection. Government regulations requiring the implementation of sports club activities can undoubtedly have consequences in the lives of athletes. It is estimated that more than hundreds of thousands of students from this policy were forced to be laid off (Mahfud et al., 2020). In addition, the restrictions on regular physical activity and sports learning inevitably interfere with students' daily routines.

The main principle and purpose of professional learning is to increase insight and knowledge as an initial capital to be applied to the community. The achievements achieved by an athlete are certainly not due to chance but must go through several stages of a long training program. Concerning the game of volleyball as an achievement sport, there are four elements in achieving achievement, namely physical condition, technique, tactics, and mentality (Syafrizar & Rifki, 2017). Of the four elements, the physical condition has the most essential and fundamental role in an achievement sport, which, if an athlete has an excellent physical condition, will support other abilities such as technique, tactics, and mentality (Prem et al., 2020).

Proper physical condition training plays a vital role in improving the performance of a volleyball athlete (Prem et al., 2020; Syafrizar & Rifki, 2017). This aligns with previous research on the technical abilities of professional volleyball athletes, which found several indications of the importance of providing a physical training program for a volleyball athlete before developing a training program for the technical aspects of volleyball games (Rifki & Hermanzoni, 2017).

The lack of safe guidelines for students regarding what they can or should do to maintain their learning program or physical activity routine has negative consequences for sports and learning practitioners (N et al., 2020). This certainly requires a quick response from various parties. In response to the above problems, the results of the researcher's previous research regarding the independent volleyball learning model for students are assumed to be able to answer current issues. Consistency in developing various volleyball learning models through various research activities from 2016 to 2021 is the basis for continuing the Development of an Independent Volleyball Learning Model for University Students during the COVID-19 pandemic.

Departing from the description above, it can be seen that the goal is the availability of an independent volleyball learning model for students during the COVID-19 pandemic that is valid, practical, and effective. The novelty emphasized in this development is creating a product as an independent volleyball learning model for students during the COVID-19 pandemic, which is packaged into a learning model book and a separate volleyball learning tutorial video. The novelty that arises to answer the problem of implementing learning has been carried out without clear guidelines due to various technical issues that occurred due to the COVID-19 pandemic as it is today. The difference between this research and previous research appears in assessing and developing an independent volleyball learning model for students during the COVID-19 pandemic.

## **METHOD**

### *Research Design*

This research is research designed in two stages. The first stage is needs analysis, design projection, and development of an independent volleyball learning model for students based on the draft program; a validity test is carried out until its practicality. In the second stage, the effectiveness test was carried out through field testing of the

independent volleyball learning model during the Covid-19 pandemic. This research uses a research and development approach.

The development research model used in this research is the ADDIE development model. ADDIE model is one of the development research models based on a systems approach. The development process in the ADDIE Model is interactive. Namely, the results of evaluating each phase can lead to product development in the next phase. The use of the ADDIE model in developing this product consists of 5 main phases or stages, namely: ADDIE consists of five stages, namely: analysis, design, development, implementation, and evaluation (Branch, 2009; Prem et al., 2020)

### *Participant*

The implementation stage of this research has a target population covered in this research: independent volleyball learning for students. To make this research more manageable, researchers will take samples with a tiered cluster sampling technique. In this case, the province will be divided into three regional clusters. From each cluster, a representative student-athlete will be selected.

### *Analysis Data*

Finalizing the product development of an independent volleyball learning model for students during the COVID-19 pandemic is by asking for an assessment of 3 experts to validate this learning model so that it can be used as expected. Experts are asked to assess the learning model that has been made and provide assessments and suggestions for improvement and teaching materials that have been designed. The input, suggestions, and data received are used as a basis for making revisions at this stage. The revised learning model is submitted back to the validator. Validators are asked to provide an assessment and opinion on the learning model that has been designed. So, it can be said that the teaching materials prepared are valid.

To make it standardized, then proceed with the test:

- 1) The validity test relates to the extent to which the instrument can measure what should be measured.
- 2) Reliability test, which is related to trust issues.
- 3) The instrument practicality test relates to the extent of the practicality of the instrument made.
- 4) Test the effectiveness of the instrument, which relates to the extent of the efficiency of the usability made

(Cury et al., 2019; Kane, 2013).

All data were analyzed using IBM SPSS software. Significance was determined at the  $p < 0.05$  level.

## **RESULT**

The tests carried out to make an independent volleyball learning model for students during the COVID-19 pandemic are validity and reliability tests. The score is obtained by calculating how many assessments the validator gives based on the available test items.

**Table 1: Distribution of Validity and Reliability of Bolavoli Serving Instruments**

Goal	Mean ± SD	Validity	Reliability
Training Materials			
Training Objectives	80 ± 0,25	0,574	0,896
Quality of Training	80 ± 0,32		
Training Variations	78 ± 0,43		
Training Method			
Systematization of Training	79 ± 0,25	0,586	0,963
Training Effectiveness	80 ± 0,34		
Training Appeal	78 ± 0,45		

The validity and reliability test of the independent volleyball learning model for students during the co-19 pandemic in Table 1 has a value of (1) training material, which has a validity of 0.574, and Cronbach's Alpha reliability = 0.896 is in the excellent category. (2) training methods have a validity of 0.586, and Cronbach's Alpha reliability = 0.963 is in the excellent category.

## DISCUSSION

The background of this research is the unavailability of an independent volleyball learning model for students during the COVID-19 pandemic. The impact of the COVID-19 pandemic is very evident in education, where mixed (offline and online) lectures are held. The pandemic forces people, including students, to postpone various learning activities and stay home. In response to this problem, researchers need a relevant learning model for students following current conditions by developing an independent volleyball learning model for students during the COVID-19 pandemic.

The objectives of this study were specifically to (1) assess the validity of developing an independent volleyball learning model for students during the COVID-19 pandemic, (2) determine the practicality of an independent volleyball learning model for students during the COVID-19 pandemic, and (3) test the effectiveness of developing an independent volleyball learning model for students during the Covid-19 pandemic.

This research is planned to be carried out in 2 years with several stages of activity. The first stage is the needs analysis stage, design projection, and development of an independent volleyball learning model for students based on the draft program; validation testing is carried out until its practicality. The second stage, an effectiveness test, was conducted through field testing of an independent volleyball learning model for students during the COVID-19 pandemic, following the characteristics of the research and instruments developed.

## CONCLUSION

Based on this development, it will produce a guidebook containing an independent volleyball learning model for students during the COVID-19 pandemic. It will be included in a guide for the volleyball learning model and video tutorials on separate volleyball learning models for students during the COVID-19 pandemic. The resulting product is an instruction for students in carrying out the learning process, where this product will describe the steps of techniques and forms of exercise that can be applied to students as instructions in independent volleyball learning for students during the COVID-19 pandemic.

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