

# Development Learning Model Variation Techniques of Volley Ball Services Using Visual Audio Media

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Abstract: This main purpose study was to produce learning media variations of volleyball service techniques in Sandika Senior High School. Methods study used development research with Sugiyono development model (a product oriented development model). This study was conducted for 18 days. Learning media developed in this study in the form of computer-based learning software, and the end result of this product will be stored in flash and compact disk (CD). Subjects in this study were students of grade X Sandika Senior High School Talang Kelapa Banyuasin. The result of this study found that small group testing stage is good and student questionnaire result to media usage very practical. The potential effect of learning media is known in the field test stage, the students' psychomotor ability learning achievement is enough, the cognitive ability is medium and the affective assessment is good. The implication research is that the instructional media of variation of volleyball service technique developed has a potential effect on student learning outcomes.

## 1 INTRODUCTION

Volleyball is a form of physical activity that is structured and aims to improve one's fitness so that positive effects are obtained. Service is an opening blow to start the game of volleyball, service is a ball blow made from the back line of the game field beyond the net to the opponent's area. According to Beutelsthal (2005: 8) service is the first touch with the ball as a starting blow then developed into a powerful weapon to attack.

Based on the description of volleyball service techniques not only as a starting blow in the game volleyball, but if viewed from the angle of service tactics is a beginning to get the value for the team managed to achieve victory. Learning problems experienced by students in the material so as to affect the learning achievement. Sandika High School is a school in Talang Kelapa Banyuasin Sub-district selected at random or random. Based on a preliminary study conducted at Sandika High School on volleyball learning materials, it is known that basic volleyball techniques are not yet fully mastered by students, so students feel bored to learn basic volleyball techniques. The teacher of the physical education teachers has difficulty in giving examples of basic motion techniques of particular sports games one of which is advanced volleyball

technique due to the lack of creativity and innovation of teachers in developing learning models.

The teacher's role as a science developer is enormous for choosing the right and efficient learning for students. Teachers are expected to be able to design interesting learning activities, create talent learners, and able to improve the fitness of learners (Suherman, 2009: 4). Good learning can be supported from a conducive learning atmosphere and communication relationships between teachers, students can run well. Because the learning process is a process of communication that takes place in a system, then the role of instructional media is very important as one component of the learning system. Learning media is an integral component of the learning system. Sanaky (2009: 4) learning media is a means of education that can be used as an intermediary in the learning process to enhance effectiveness and efficiency in achieving teaching objectives.

The importance of audio-visual materials in the teaching and learning processes cannot be over emphasized. Below are some of the roles of audio-visual materials (Ashaver & Igyuve, 2013: 44). Audio visual media that combines the use of sound requires additional work to produce it. One of the important work required in audio visual media is the writing of manuscripts and storyboards that require considerable preparation, design and research

(Azhar Arsyad, 2011: 94). In fact, use audiovisual resources in teaching and learning as an eccentric in totality. The dissenting voices wondered if audiovisual resources have in any way enhanced teaching and learning. It is against this backdrop that the study investigates the impact of the use of audiovisual resources on teaching and learning (Ode, 2014: 196).

This is the basis for developing variations of volleyball service techniques using computer-based media. Basic volleyball learning techniques have not been taught with the maximum, because teachers have not used the varied learning media in the learning process.

Several previous studies that have studied the learning media were conducted by Lumintuarsa (2013), which was written in a Journal entitled the development of basic volleyball instructional media for junior high school students. Based on the results of the research is known that this learning media is very good to use, and has an effect on improving learning achievement. Furthermore, the results of research conducted by Djuwaini and Pardijono (2014) entitled the application of the use of plastic ball learning media to improve learning outcomes passing under volleyball. Based on the results of the research note that the use of plastic ball learning media in learning bolavoli turned out to improve the learning achievement passing under grade V students SDN Pakal II Surabaya.

Based on the problems in learning volleyball service techniques. It is necessary to develop various learning media, hoping to improve the skills of volleyball service technique as the development of learning model.

## 2 METHODS

This research is a research development or research and development (R & D). This research was conducted to develop learning model variation techniques of volley ball services using visual audio media. All subjects targeted in this research are all students of grade X SANDIKA Senior high school Talang Kelapa Banyuasin with a population of 160 students. Samples taken are 40 students of grade X.

In the design validation phase, products that have been designed on the prototype created will be validated by content experts, design experts, and layout experts. Experts test the validity of products made by researchers. The test is a test of content validity, design, and layout. Expert advice will be used to revise the media created. Opinions and suggestions from experts are written on the

validation sheet as material for revision and state that the media design has been valid

Research stages (1) small group testing that is the result of revision from experts on prototype one. Product testing phase with small groups to see whether basic volleyball technique learning medium can be developed. The two prototypes were tested on a small group, consisting of 8 (eight) class X students representing the actual class. At the end of the learning students are asked to fill out a questionnaire and provide feedback to the media learning, to see the practicality of advanced learning media volleyball techniques developed. The result of the questionnaire of the students' responses, was used as the material for revision of learning media of volley ball technique that was developed. This result is called the third prototype. (2) Product revision, result of creativity test of new student get value 60% than expected. The design of new teaching methods needs to be revised so that students' learning creativity increases in higher gradations. (3) Large group trials of revised products based on suggestions from validators and small group experiments were used on research subjects in field tests. Research subjects in grade X students. Trials were used to see the potential effects of media developed on outcomes student learning. Products tested on field trials are products that meet standard of validity, practicability and have potential effects. (4) The revision of the product is a revision made when in the use of a broader institution there are deficiencies and weaknesses. (5) Preparation of the final product if the product in the form of teaching method is declared effective, then the method can be applied to every educational institution.

Data analysis technique used is (1) Data Walkthrough Analysis: Knowing the prevalence of learning media variation of volleyball service developed, then the validation of the experts. After studying the design of learning media, experts will provide comments, feedback, on learning media developed. The data obtained in the form of suggestions from the experts used as a reference to revise the product being developed, until the developed product is judged or declared feasible and ready for trial. (2) Questionnaire Analysis: Data obtained through questionnaire then analyzed by using likert Scale to get opinions, appreciation, and perceptions of students in using media learning techniques volleyball service. (3) Observation Data Analysis: Observational data obtained from the learning process takes place when held observations using the instrument observation guide sheet. At this stage to be observed is the students with the intent to know the activity of students on learning by using learning media.

### 3 RESULTS AND DISCUSSION

#### 3.1 Results Small Scale Trial

The experimental group test was conducted on 8 students of class X. The purpose of this trial is to see the practicality of learning media developed, before being tested on the real research subject.

Implementation of this students are given learning materials that are equipped with instruction learning media navigation. In this stage the assessment of learning media is done by using a questionnaire given to students, with the aim to see the practicality of learning media that is being developed.

The final stage of learning, students fill out a questionnaire to find comments or responses to the second product of learning media variations of volleyball services techniques that are being developed.

Table 1: Small Group Trial Step.

No	Item Observed	Frequency		Category
			%	
1	Students follow the learning instructions available on instructional media variation of technique of volleyball service	33	82,50	Very Good
2.	Discuss or inquire with other students about the variation of volleyball service techniques	34	85	Very Good
3.	Notes the material parts that are considered important	34	85	Very Good
4.	Asking questions / raising opinions	33	82,50	Very Good
5.	Working together in the learning process	34	82,50	Very Good
6.	Able to follow the exercise, and test independently	33	82,50	Very Good
7.	On time in completing the task	32	80	Good
8.	Can conclude learning materials appropriately	32	80	Good
Average			82,50	Very Good

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Instructional technology/media for learning-teaching process provide with the tools to engage learners powerfully in the learning process. It greatly enhance the effectiveness of communication. If it is properly designed, skillfully produced and effectively used have great influence on teaching & learning (Naz & Akbar, 2008: 35-36). Tools/special physical education instructional media are needed to be designed in accordance with the rules of ergonomics. A good, safe, comfortable and attractive model of media learning that is in harmonious growth of physical and psychological development for junior high school students in West Java in particular and Indonesia in general (Nugraha, 2017: 4).

Table 2: Results of Questionnaires in the Small Group Trial Stage

No	Indicator/ Aspect Assessed	Average	Description
1.	Clarity of material content on learning media	4.37	Very Practical
2.	Compliance between examples and practice questions in learning media	4.37	Very Practical
3.	Problem Level Problem	4.62	Very Practical
4.	The language used is easy to understand, clear and simple	4.62	Very Practical
5.	Clarity of instructions for using learning media	4.50	Very Practical
6.	Ease of use of navigation on learning media	4.00	Practical
7.	The suitability of display images and media learning video	4.75	Very Practical
8.	Compatibility of color composition in learning media display	4.62	Very Practical
9.	Clarity of text, images and sound on the display of learning media	4.50	Very Practical
10.	The effectiveness of music use in instructional media	4.12	Very Practical
11.	Practical use of learning media	4.87	Very Practical
Average		4.30	Very Practical

Table 2 shows the average results of the responses to the use of learning media, each indicator at the small group testing stage of 4.30 can be concluded that the learning media variations of

volleyball service techniques included in the criteria very practical. The small group trial stage of the students was asked for comments and suggestions for improvement of the learning media that the researcher developed.

The students' comments and suggestions state that they enjoy learning by using the instructional medium of variation of volleyball service technique, because learning becomes interesting and not boring, because the videos in the learning media that are presented provide information about the technique or how to perform variations of volleyball service technique is good and true. The music that accompanies the learning media makes it comfortable while learning, so that learning becomes more interesting and fun.

### 3.2 Large Scale Trial Results

The acquisition of the third prototype is valid and practical, then conducted large group trials to see the potential effect on learning outcomes. In this stage two tests on students before learning (pretest) and after learning (posttest).

The test phase of the large group of researchers tested the students twice as much as the pretest and posttest. Pretest was done at the beginning of learning before using the instructional media of variation of volleyball service technique, while posttest was done at the end of the learning after using the instructional media of variation of volleyball service technique.

Psychomotor observation, therefore, organized with the necessary settings, and built taking into account the contextual circumstances, aims to early identification of motor difficulties in view of an educational program. It's individualized for each student (Viscione, et al. 2016: 3).

The results of psychomotor assessment of students pretest and posttest can be seen in table 3 below:

Table 3: Result of Pretest and Posttest Student Psychomotor Ability.

<i>Pretest</i>				
No	Interval	Student	Percent Age	Category
1	0-69	33	82,5	Unfinished
2	70-100	7	21,2	Finished
<i>Post test</i>				
No	Interval	Student	Percent Age	Category
1	0-69	2	5	Unfinished
2	70-100	38	95	Finished

Based on table 3, there are 33 students or 82,5% with unfinished category, and 7 students or 21,2% are complete, while data of posttest result are 2 students or 5% incomplete category, and 38 students or 95 % with complete category.

The results of the students' cognitive and posttest cognitive abilities can be seen in table 4 below:

Table 4: Results Pretest and Posttest Student's Cognitive Ability

<i>Pretest</i>				
No	Interval	Student	Percent age	Category
1	0-69	30	75	Unfinished
2	70-100	10	25	Unfinished
<i>Post test</i>				
No	Interval	Student	Percent age	Category
1	0-69	6	15	Unfinished
2	70-100	34	85	Unfinished

Based on table 4, there were 30 students or 75% with unfinished category, and 10 students or 25% were completed, while the posttest result data were 6 students or 15% of unfinished category, and 34 students or 85%.

### 3.3 Discussion of Small Group Trial Stages

Implementation of small group trials involving 8 students, the activities undertaken are students are given lessons by using the media audio visual in research for learning variations of volleyball service techniques. Daryanto (2013: 13) audio visual media has the ability to display images, photos and motion.

Then at the end of the learning students are given a questionnaire to determine the response of students after learning using the media learning variations of volleyball service techniques. Based on the results of the questionnaire showed an average of 4.30 with a very practical category. Based on the observation result, the average value is 82.50%, with the conclusion that the students have been able to do the learning well. Based on students' responses at small group testing stage, it can be concluded that the learning media developed has been tested for practicality and feasible to use.

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students' responses at the small group testing stage, it can be concluded that the learning media developed has been tested practically and feasible to use.

### 3.4 Discussion of the Big Group Trial Stage

Learning media is one of the important factors in improving the quality of learning. This is caused by technological developments in the field of education with which demands efficiency and effectiveness in learning (Sungkono, 2008: 71).

The potential effect of instructional media is known in the large group trials stage, obtained by the percentage of psychomotor ability of 95% with the completed category or 38 students, compared to the result of pretest of 21% with the complete category or 7 students. The result of affective assessment indicates that the students have good attitude and care about the learning using learning media variation of volleyball service technique so that it can help the teacher in delivering the subject matter, and give an example.

The use of learning media variations of volleyball service techniques, it is known that students have an interest in learning because the learning media variations of volleyball service techniques can be motivated in learning, and media learning variations of volleyball service techniques capable of presenting the required information. Media made declared valid after validated by experts, learning media variations of volleyball service techniques. Tested its practicality in the small group testing stage, learning media variations of volleyball service techniques made attractive to students, easy to understand, and students more quickly master the competencies to be achieved according to learning objectives. It is said to have a potential effect on student learning outcomes obtained at the large group trial stage, from skills, knowledge, and attitude assessment.

The results of this study are in line with previous research conducted by Lumintuarsa (2013: 45) which states that the medium of learning techniques of volley ball that developed proved very good, valid, and tested its effectiveness. Furthermore, the results of research Daryono (2014: 19), the model of ball basketball game worthy ball used for student learning.

## 4 CONCLUSION

Based on the result of the research that has been done about the making of learning media of volleyball service technique, it can be concluded (1) The making of instructional media of variation of volleyball service technique developed has been validated after validated by the experts, so the instructional media variation of volleyball service technique learning. (2) Learning media of variation of volleyball service technique that has been tested its practicability in small group test phase, can be seen from instructional media of variation of volleyball service technique resulted interesting for students, and students more quickly master the competence achieved according to learning objectives. (3) Learning media variations of volleyball service techniques created have a potential effect on student learning outcomes. It is said to have a potential effect on student learning outcomes obtained in the large group trials stage, judging by the assessment of skills, knowledge, and attitudes.

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