The Effectiveness of Learning Passing Volleyball for Student on Website-Based

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Abstract   Volleyball is a sport that is quite popular in Indonesia, and this is why this sport is always given at various levels of schools in Indonesia. However, it is still not possible for learning to be carried out directly because the spread of the corona virus in Indonesia is still increasing, requiring learning to be carried out online. The website is one of the media that can be used in volleyball game courses. The question is whether this website is effectively used in volleyball lectures. The purpose of this study was to find out the extent to which the effectiveness of volleyball passing learning using the website was. This study used experimental method, where this experimental method is a research by giving some special treatment to the research subjects used. The one case study has been used in the research. The subjects used in this study were students of physical education, health and recreation STKIP Pasundan with a total of about 120 people. Subjects were given treatment for 8 meetings in accordance with the semester learning plan for the passing technique. The instrument in this study was a test of passing down and up to the wall for 60 seconds. The data analysis technique uses a percentage. The findings showed a rise in students passing learning goals. The results of STKIP Pasundan students' physical education, health, and recreation have improved significantly of the website's material.

1. Introduction

Some basic techniques in volleyball games include passing, serving, smash, and block [1]. Meanwhile, Hermoso said the volleyball game consists of several techniques, namely serving, receiving service, passing, attacking, damming, and defending [2]. Some of the techniques that need to be mastered are: a) Serving, b) Receiving Serve, c) Setting, d) Attacking, e) Blocking, f) Digging. Meanwhile, those related to tactics are Team Defense and Team Offense [3]. The basic skills needed to become a successful volleyball player are divided into two parts, namely attack techniques consisting of serving, passing, setting, and hitting, and defense techniques consisting of blocking and digging. [4]. All of these techniques need to be understood, understood and can be carried out by students properly and correctly, as a result of students' direct participation, they are able to apply them properly as well. Volleyball game is a game that has a fairly fast tempo, so it requires good mastery of basic

techniques, otherwise mistakes in the match will often occur, and one of the basic techniques that need to be mastered is passing, because when playing it is the passing technique that is often used and stands out, and can be useful as a defense or also to add points and be used to pass in the initial step of the attack [5]–[8]. Therefore, most schools and volleyball clubs provide material on passing first before other techniques. Passing is divided into two types, namely passing down and passing up. The forearm pass and the serve are the two most important skills in volleyball. Without the serve and pass, the ball cannot be put into play [9]. Form arm pass is a very important skill to give to players for several reasons [10]. While the overhead pass or setting is a technique that can be useful for controlling the ball in its own area [11]. The top pass is usually used as a second contact or to play any ball at chest level or above, and is often used to direct the ball parallel to the net for the spike to hit [12].

The importance of these techniques makes teachers must be able to provide the maximum learning process. One of the people who will become teachers are students, especially those studying at the Higher Education Teacher Training Institute (LPTK). In Indonesia, there are many LPTKs that specialize in physical education and sports, STKIP Pasundan, for example, is located in Cimahi City. However, the conditions that make it impossible to carry out the learning process directly, due to the covid-19 pandemic that is still hitting Indonesia, make learning carried out online. One of the platforms used in volleyball learning courses is a website.

In the last few years, the use of websites has greatly increased, not only as a place for online transactions, but also in the world of learning [13]. The website can load learning videos, and of course this will be useful in spreading knowledge, seen for 18 months there were 30,864 views on the website [14]. The website can be used for e-learning, and is now widely used by academics to help solve various problems in the world of education and their daily needs [15]. One of the current trends in education is the increasing use of e-learning [16]. Some of the benefits are the effectiveness of educating and financing, as professional development, and making it possible to provide education for everyone in the world [17]–[20].

Especially in this era of the Covid-19 Pandemic, online learning is applied from elementary to tertiary levels, which requires students to carry out the online learning process, so that they study at home [2 1], [22]. This is what makes information technology an important tool in the learning process, so that the use of the internet is widely needed as an expansion of learning objectives in educational institutions [23].

However, the reality on the ground related to online learning is not so easy to take advantage of, there are even some students who complain about this online learning. I hope that this becomes a material of interest to be researched, so that it is more certain how the influence of the implementation of this online learning on student learning outcomes, especially in this study the study is about passing learning in volleyball games that are applied to the website through e-learning. It is hoped that this research can see the effectiveness of learning volleyball passing based on this website.

2. Objectives

The focus of the discussion that will be presented in this study is focused on the effectiveness of online learning by using a website on volleyball passing material. Students from STKIP Pasundan level one participated in the study, which included a 120-person volleyball game learning course divided into four classes.

3. Methods

The method used in this research is experimental, where this experimental method is a research by giving some special treatment to the research subjects used. The one case study is being used in the research, where the researcher only gives a test at the end of the meeting [24]. For more details, the research design figure can be seen as follows:

Figure 1. One Shot Case Study Design Research

Information:
X : Treatment
O : Observation/Test

The population in this study were all first-year students in the physical education, health and recreation (PJKR) study program of STKIP Pasundan as many as 260 people, and the sampling technique used was purposive sampling, namely only students who were taught by researchers. Therefore, for the sample used there are 120 people. The number of meetings in this study were eight meetings, where each meeting material was provided through the website with the URL address: https://sumbarahambali8.wixsite.com/pes-research. The instrument used is a volleyball passing test to the wall for 60 seconds. Students do the down pass and the upper pass to the wall directly. This instrument has been tested on 18 volleyball athletes and produces a validity score of 0.97. For more details on the implementation of the test can be seen in the following figure 2:
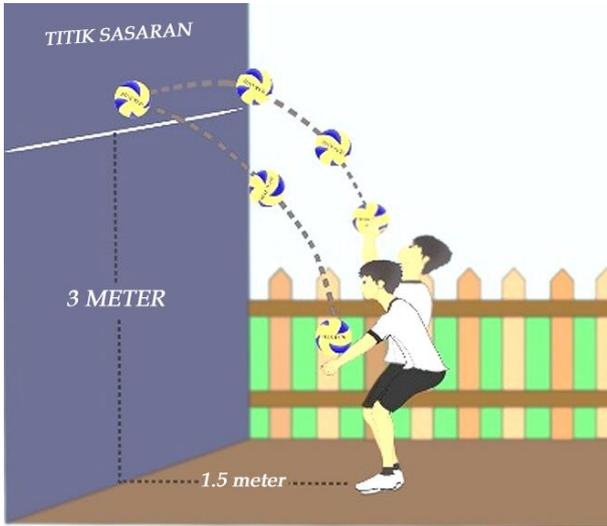
Figure 2. The Implementation Volleyball Passing Test

The criteria for the effectiveness of volleyball passing can be seen in the following table:

Table 1. Assessment Criteria

Interval	Value	Category
> 40	A	Excellent
38 – 40	B	Good
35 – 37	C	Enough
< 35	D	Poor

The data analysis technique uses a percentage with the following formula:

$$P = \frac{\sum X_1}{\sum X_n} x 100\%$$

Information:
P = Amount or amount of percentage
$\sum X_1$ = The actual score Total
$\sum X_n$ = The ideal score [25]

4. Result

The research was conducted for approximately two months, where students were given volleyball passing learning materials through the website. Here are some views on the website used:
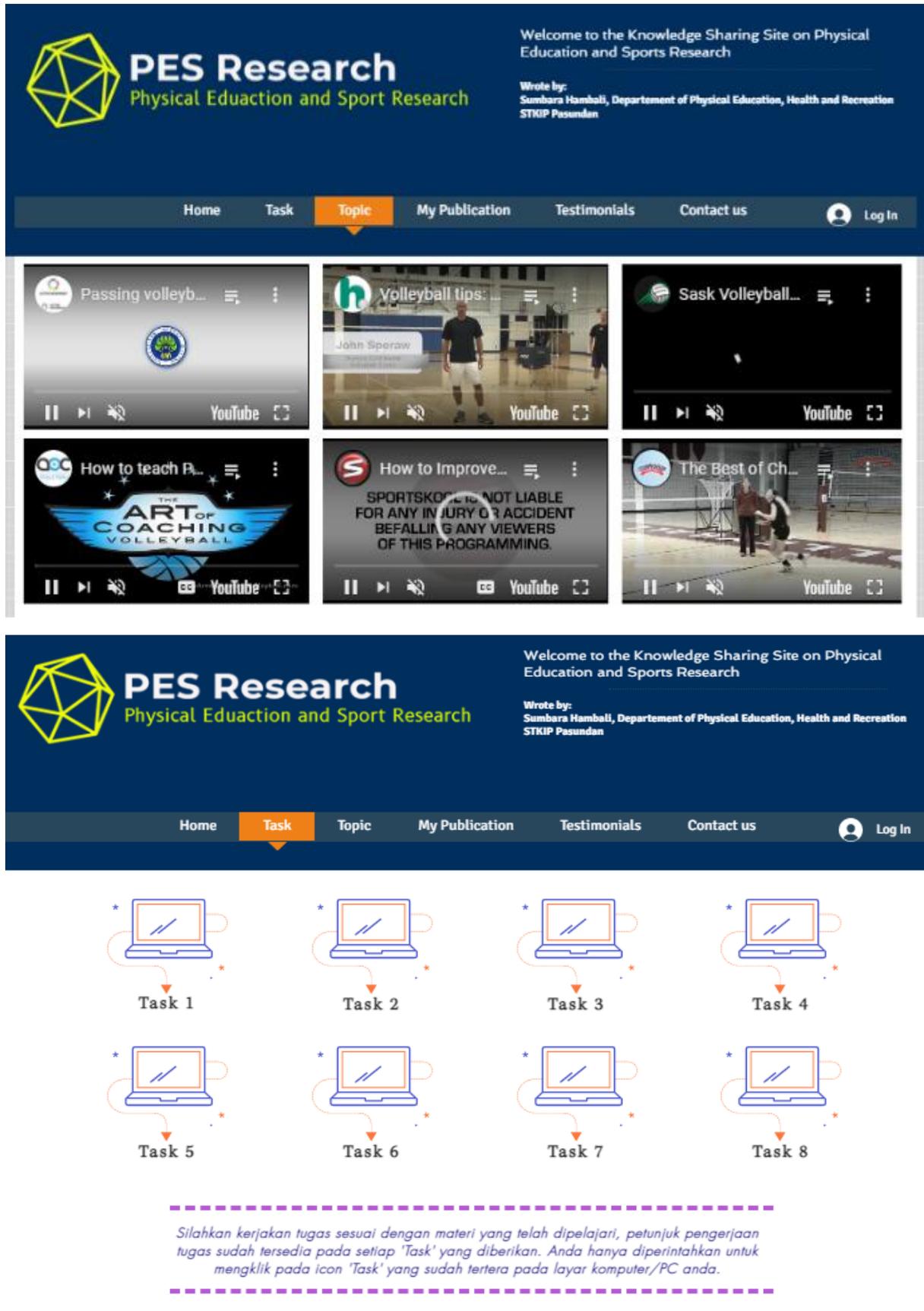
Figure 3. Display Website of the Learning Passing Volleyball

After the treatment was given, students were given a volleyball passing skill test using a prepared instrument, and based on the acquisition, processing and analysis of data using the IBM SPSS Statistics 20 program and Microsoft office excel 2013, the results look at were obtained:

Table 2.   Volleyball Passing Skills Test Results

	N	Min	Max	Mean	Std. Deviation
Passing the Test	120	20	44	35.33	4.99
Valid N (listwise)	120				

Table 3.   Frequency Distribution of Volleyball Passing Test Results

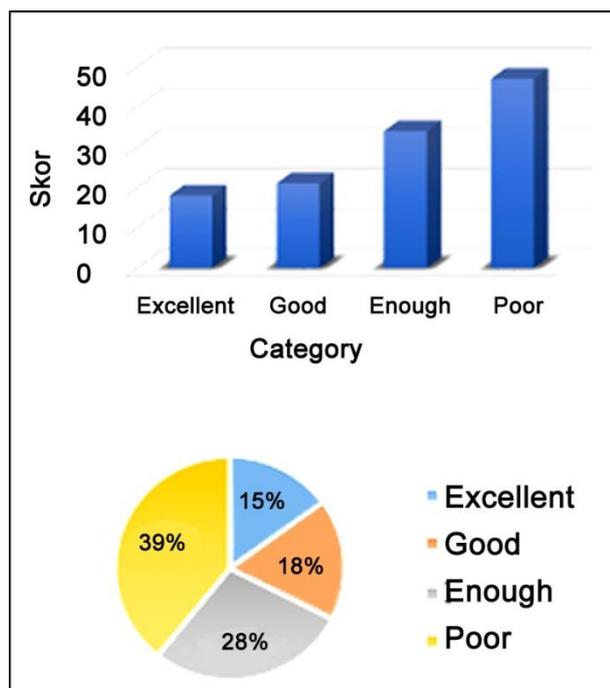| Score	Value	Category	F	%
> 40	A	Excellent	18	15
38 - 40	B	Good	21	18
35 - 37	C	Enough	34	28
< 35	D	Poor	47	39
Total			**120**	**100**

Figure 4.   Diagram of Results Volleyball Passing Test

Based on tables 2 and 3, as well as Figure 4, it can be seen that the average score of the students' volleyball passing skills results is 35.33 with the lowest score of 20 and the highest score of 44 and the standard deviation of 4.99. Then from 120 students there were 18 people (15%) in the excellent category, 21 people (18%) in the good category, 34 people (28%) in the enough category, and the remaining 47 people (39%) entered the less category. If you look at the results of learning satisfaction scores, namely students who get grades A and B, then only 39 people (33%) feel they are good, while the remaining 81 people (67%) get C and D grades, and they will still didn't really feel like they were getting the most out of it.

However, overall it can be seen from the results of the average value of 35.33 which is included in the sufficient category, so this research shows that learning volleyball passing by using the website for students can be said to be quite effective.

5. Discussion

The results showed that learning volleyball passing by using the website had a sufficient level of effectiveness. This certainly indicates that learning with websites can help students understand the material. In addition, the learning design on the website allows parents to be involved and aware of the material provided, so that it can help develop and consolidate students' movement skills [26]. With internet connectivity on the website, it certainly has a transformative impact on the knowledge aspect, provides learning resources that can be reached anywhere and anytime, and allows users to actively participate [27], [28]. The benefits of the website are also quite effective in using online learning situations and conditions like today, where students are given the opportunity to study at home [29], which of course can access learning resources from anywhere and anytime.

Web-based learning, internet, virtual, cyber, or distance education are various terms used to describe online learning. Text, graphics, testing and record keeping, audio and video, animation, simulation, online mentoring, material connectivity to the web, and allows communication with teachers [30]. It is apparent that online learning focuses on information that is backed by clear technology in order to give valuable lessons. [31]. This learning system can be carried out directly at the same time even though the location between educators and students is different [32]. One of the platforms or media that can be used for distance learning is the website [33].

The use of the website in the typical example has aided students in understanding the lecturer's material, and it is hoped that the use of technology can improve the quality of learning [34]. The website provides all kinds of learning resources such as internal and external content, videos, lesson plans, and databases, can also be made interactive between users, so it has started to attract a lot of attention from researchers and practitioners [26], [35], [36]. The following reasons give the use of websites in learning widely used.

However, from the research results obtained in the field, that for learning passing in volleyball for students it is felt that it is still not optimal, because only 33% have shown satisfactory results, while the remaining 67% are still unsatisfactory, although the overall effectiveness of the

results of learning volleyball passing using this website is said to be quite effective. This is due to several things such as internal and external factors. Internal factors such as desire, health and intelligence of each student are different. As for external factors such as facilities, natural conditions, and student life situations that are less likely to access the site, it is alleged that this is also an inhibiting factor. This is probably what causes the low satisfaction of students in conducting online classes, and other studies also mention that the website-facilitated approach allows content transfer from 1 to 29% only [34], [37]. In addition, the general character of students is a period of transition and a period of quite crucial age, where at this phase the hormonal system experiences flexibility in determining behavior patterns, so that their behavior often changes [38], [39]. This is where it is necessary to build a learning system that can provide character content, even though the learning process uses an online platform, because character is not only useful for life in general, but also more specifically for the achievements of the students themselves [40].

It is these factors that presumably make the learning process during the lecture a little less than optimal, so that the learning falls into the category of quite effective. In addition, the subject matter, which is movement skills, makes students do very little exercise. Compared to if the learning process were carried out offline, this allows students to move for longer periods of time and with more flexibility, because they are motivated by the lecturer's direct treatment or the treatment of their classmates.

6. Limitations

This study only focuses on the scope of students in one university, and focuses only on one basic technical material in one course, so that the information provided is unlikely to have an impact on the effectiveness of learning using websites in other subjects. In addition, the assessment system which still refers to only one aspect, namely psychomotor, is felt to still lack information regarding the effect of using this website on affective and cognitive aspects. Therefore, to measure the effectiveness of learning, the assessment system should better cover these three domains, because it is in accordance with the learning objectives that require students to develop their affective, cognitive and psychomotor domains [41].

7. Conclusions

The results showed that learning volleyball passing using the website for students was considered quite effective in terms of psychomotor aspects. However, looking at the distribution of the scores, only a small percentage of them have received satisfactory scores. This means that there are many things that need to be addressed in online learning using this website. Selection of content, assignment and assessment system may be more optimally applied in the learning process.

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