



Development of Web-Based Sepak Takraw Learning Media

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ABSTRACT

This research aims to produce web-based sepak takraw learning media as a learning resource for Physical Education and Physical Education students at FKIP Sriwijaya University. The type of research used is research and development (R&D). The population in this research were all students in the third semester of Physical Education, FKIP, Sriwijaya University. The sample for the small-scale test in this study was twenty-three third semester physical education students. The large-scale trial consisted of sixty-five third semester Physical Education students. The instruments in this research are data collection using validation sheets, questionnaires, and student learning outcomes tests. Data analysis techniques include validity, practicality analysis and effectiveness analysis. Based on the research results obtained from this research, the sepak takraw learning media is said to be very valid, seen from the validation results for the average score for all aspects of the assessment of 4.45 in the very valid category. From the student response questionnaire, this learning media was said to be practical to use by getting a practicality score of 3.81 in the very positive category. Based on the results of student learning tests, the web-based sepak takraw learning media, namely as a learning resource for Physical Education and Physical Education students, FKIP, Sriwijaya University, is said to be effective to use. The test results from the learning outcomes obtained 90.9% completeness which is included in the high category. The conclusion of the research is that the web-based sepak takraw learning media for Physical Education and Physical Education students at FKIP Sriwijaya University is stated to be very valid, in its use this media is also said to be practical in the positive category and this media is also effective for use as a support for learning process activities because it is in the high category.

Keywords: Learning Media; Sepaktakraw; Web-Based.

INTRODUCTION

The success of the teaching and learning process can be measured from the success of students participating in learning activities. This success can be seen from the level of understanding of the material and student learning outcomes (Sahabuddin et al., 2022). The higher the understanding, the higher the level of learning success. In learning, basic

activity is needed to develop further material, this is greatly influenced by the learning media used (Utami et al., 2022). Passive learning will hinder students' creative thinking patterns in understanding a concept. The challenges facing the world of education today require lecturers and all their staff to be able to improve the education system so that learning continues well. The role of technology in the world of education greatly influences the process of teaching and learning activities, the emergence of technology may shape the future of education (Bozkurt, 2019). The Physical Education and Health Study Program is one of the study programs at Sriwijaya University. In the courses in this study program there is a sepak takraw course in it. Iyakrus & Ramadhan (2021) sepak takraw is a game that uses a ball (takraw) made of rattan. Played on a court measuring 44 feet (13.42 m) long, and 20 feet (6.1 m) wide. Syam (2022) sepak takraw is a non-contact team sport played widely among Southeast Asian countries. The basics of the game are similar to volleyball. Same as above Hasanuddin et al., (2015) said Sepak takraw is a popular sport in Southeast Asia, where in this game the players keep the takraw ball in the air by using their feet, knees, chest and head to touch the ball (Sahabuddin & Fadillah, 2022).

With the increasingly rapid development of technology, variations in learning media are really needed. Previously, it was print-based media, but now it can be designed using a web-based system so that it not only displays text and images but can also display multimedia material such as videos, this is more attractive to students. Study. Web-based media is learning media created using web technology so that it can be accessed via online networks. Fetriany & Sobari (2020) A web or website is a collection of web pages and documents spread across several server computers located throughout the world and connected to an integrated network called the Internet. Sofyan et al., (2020) A web or what is called a website is a collection of pages consisting of several pages that contain information in the form of digital data, in the form of text, images, videos and other animations provided via an internet connection. The role of WEB-based learning media or World Wide Web (WWW) is a collection of information from several computer servers connected to each other on the internet network. Rijal (2020) Each learning process creates a diverse and non-monotonous impression.

Web-based learning is often referred to as online learning or e-learning. One of the advantages of using the web to access course materials is that web pages can contain hyperlinks to other parts of the web, making it possible to access large amounts of web-based information. Web-based learning media can connect learning between educators and students in online learning spaces. Web-based learning can encourage students to learn

more independently, and change teacher-centred learning into student-centered learning so that it can create enormous independent learning motivation in students (Danaswari & Gafur, 2018).

From the results of interviews with students who are currently taking part in the learning process for sepak takraw courses at Sriwijaya University, Palembang, in this case undergraduate students of Physical Education and Health in the second semester, information was obtained that the improvement in learning outcomes has not been maximized in the sepak takraw courses. Low learning outcomes indicate that this is due to (1) students' lack of ability to understand the material presented, (2) student boredom with the learning process, (3) inadequate use of models, methods and media, (5) as well as a lack of interest in learning. indicated by unsatisfactory learning outcomes. This problem is caused by the lack of supporting media for students to carry out independent learning and the variety of technological learning media is still very limited. In order to maximize learning outcomes and increase the variety of learning media in the sepak takraw course, it is necessary to develop web-based learning media in the sepak takraw course. With the development of varied learning media, it has the potential to improve student academic performance in the form of learning outcomes in the cognitive, affective and psychomotor domains.

Based on research that has been carried out Darmawan et al., (2021) with the title Implementation of Web Blog-Based E-learning in class X volleyball learning at the Agricultural Vocational School Negeri 2 Tugumulyo Kabupaten Musi Rawas school year 2021/2022. This research aims to determine the completeness of the football learning outcomes of class VIII students at SMP Negeri 9 Lubuklinggau after the Web Blog-based E-Learning learning media was significantly implemented. Based on the research results, it can be concluded that after the implementation of Web blog-based E Learning the football learning outcomes of class XI students at SMK Negeri 2 Tugumulyo were significant.

In learning, basic activity is needed to develop further material, this is greatly influenced by the learning media used. Passive learning will hinder students' creative thinking patterns in understanding a concept. The challenges facing the world of education today require lecturers and all their staff to be able to improve the education system so that learning continues well. The role of technology in the world of education greatly influences the process of teaching and learning activities, the emergence of technology may shape the future of education.

From the above background, there needs to be a solution to improve the sepak takraw learning process so that learning objectives can be achieved and get maximum learning results. So the author is interested in conducting research which he hopes can contribute to the University as reference material for the development of learning media, especially in sepak takraw courses. For this reason, researchers conducted research on, "Development of Web-Based Sepaktakraw Learning Media for Students".

METHOD

This research uses a type of development research or research and development (R&D) (Sugiyono, 2019). The aim of this research is to produce web-based sepak takraw learning media that is valid and practical and can improve student learning outcomes. The research design used was to develop a Web-Based Sepak Takraw Learning Media Application Model for Physical Education Students, FKIP, Sriwijaya University.

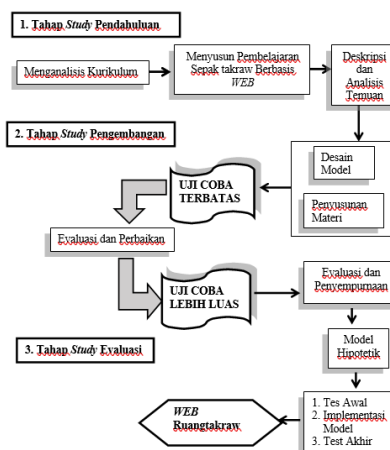


Figure 1.
 Research Design

The ADDIE model is a stage of activities and supporting components in this research focused on five stages, namely analysis, design, development, implementation and evaluation. The population in this study was 88 students in the third semester of Physical Education, FKIP, Sriwijaya University. The small scale trial was 2-3 students. The large-scale trial numbered sixty-five students. The instruments in this research are used to measure the validity, practicality and effectiveness of learning tools. Analysis of the data obtained in this research is analysis of validity, practicality and effectiveness. Learning using media and learning resources is carried out in accordance with the competency

material that has been prepared. Then, the implementation of web-based learning media carried out product analysis using data analysis techniques.

RESULTS AND DISCUSSION

Based on the results obtained from the analysis of effectiveness and practicality through distributing questionnaires to a sample of sixty-five (65) students in the Physical Education Study Program FKIP Sriwijaya University with a percentage of eighty-four point four percent (84.4%) who agreed to carry out the research development of web-based sepak takraw learning media and sixteen point six percent (16.6%) did not agree to conduct this research. The development of web-based sepak takraw learning media aims to improve student learning outcomes, this is based on problems found by researchers in the field, because the researchers studied during their undergraduate studies at undergraduate level (S-1) sepak takraw courses. Based on the researcher having taken this course, the researcher will try to provide a solution to this problem by developing web-based sepak takraw learning media for Physical Education students, FKIP, Sriwijaya University. The following are the results of the validity, practicality and effectiveness analysis.

Validator Validity Test

Based on the results obtained from the validity results of the material and media validation results, the following results were obtained.

Table 1.
Average Validation Assessment Results

Validation	Rating result	Category
Material Validation	4,0	Very Valid
Media Validation	4,9	Very Valid
Average	4,45	Very Valid

From table 1 above, the average validator assessment of the web-based learning media being developed is four point forty-five (4.45) in the very valid category. These results can be concluded that the web-based sepak takraw learning media as a learning resource for students has been developed and can be used with slight revisions and tested.

Student Validity Test

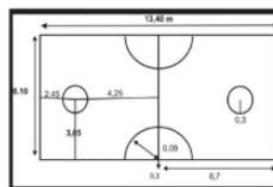
The results of the initial trial of twenty-three (23) students, the score obtained was three point seventy-one (3.71), which was in the very positive category and suitable for use as teaching material in sepak takraw lectures. The remaining score for the questionnaire answers is zero point twenty nine (0.29) due to the fact that there are still deficiencies in creating web-based learning media and revisions will be made to the learning media. In this section, researchers make improvements based on comments and suggestions from

respondents, namely as follows. 1. It is best to add images to the material in the learning media. 2. Media covers should be made more attractive.

Then, the stage of measuring the practicality of the web-based learning media created by the researchers was to carry out an initial trial on 3rd semester Physical Education students, FKIP, Sriwijaya University who were currently teaching the sepak takraw course, totaling sixty-five (65) students. From the results of the main trial, the total score obtained was three point eighty-five (3.85), which was in the very positive category and suitable for use as teaching material in sepak takraw learning lectures. The remaining score for the questionnaire answers is zero point fifteen (0.15) due to the fact that there are still deficiencies in the creation of learning media and revisions will be made to web-based learning media. In this section, researchers make improvements based on comments and suggestions from respondents, namely as follows. 1. Field explanation material should have a picture of the field. 2. The cover of the material should have the author's name. The final revision results for this web-based sepak takraw learning media are.

Lapangan Sepak Takraw

Sepak takraw dimainkan diatas lapangan berbentuk persegi dengan ukuran 13,40m X 6,10m, dibagian tengah dibatasi oleh net jaring seperti permainan bulutangkis. Pada garis tengah terdapat garis setengah lingkaran yang membagi 2 daerah pemain dengan ukuran jari jari 90cm diukur dari garis sebelah dalam. Selain itu terdapat lingkaran yg digunakan untuk melakukan servis denganan jari 30cm, ditempatkan di masing masing daerah pemain dengan jarak 2,45m dari garis belakang, 4,25m dari garis tengah dan 3,05 meter dari garis tepi lapangan (Heriansyah et al., 2021). Lapangan sepak takraw berupa lapangan yang datar dapat berada didalam ruangan (indoor) ataupun diluar ruangan(outdoor).



Gambar Lapangan Sepak Takraw

Figure 2.
After Revision



Figure 3.
After Revision

Practical Operational Test

At the stage of measuring the practicality of the learning media created by the researcher, an operational trial was carried out on third semester students of Physical Education and Health, FKIP, Sriwijaya University who took the sepak takraw course, numbering seventy to ninety (70-90) students. Researchers asked respondents to answer the items on the instrument for assessing the practicality of web-based sepak takraw learning media. The following are the results of operational trials of sepak takraw learning media by eighty eight (88) students. From the results of practical operational trials, the total score obtained was three point eighty one (3.81) which was in the positive category and suitable for use as teaching material in sepak takraw lectures. The remaining score for the questionnaire answers is zero point nineteen (0.19) as a result of there are still shortcomings in making learning media and we will make revisions to this web-based sepak takraw learning media.

Operational Effectiveness Test

Measuring the effectiveness of web-based learning media created by researchers, operational trials will be carried out on third semester students of Physical Education and Health, FKIP, Sriwijaya University who take the sepak takraw course with a total of seventy to ninety (70-90) students. The effectiveness of the learning tools developed is analyzed through data measuring student learning outcomes. Achieving learning outcomes is directed through individual or individual achievements. Students are said to be successful or complete if they get a score greater than or equal to the KKM score or a score > KKM. Learning is said to be classically successful if at least eighty percent (80%) of students achieve a complete grade. The percentage results of the effectiveness of web-based learning media for students in the third semester of Physical Education, FKIP, Sriwijaya University for the sepak takraw course can be seen in the following table.

Table 2. Results of Learning Completion Percentage

Completeness	Amount	KKM
Completed Student	80	
Incomplete Students	8	75
Percentage of Learning Completeness	90,9%	

From table 2 above, the results show that the number of students who achieved study completeness above the KKM was eighty (80) people with a completeness standard of

seventy-five (75). Meanwhile, eight (8) students obtained completion under the KKM. The percentage of student learning outcomes obtained was ninety point nine percent (90.9%) with the average student learning mastery level score obtained being ninety point zero (90.0), in the high category. These results can be concluded that the web-based sepak takraw learning media developed can be categorized as effective for use during the learning process. This final product revision is to make improvements based on comments and suggestions from respondents, namely as follows. 1. It would be best to add a quiz to this web media. 2. Learning media covers are made more attractive.



Figure 4.
Before revision

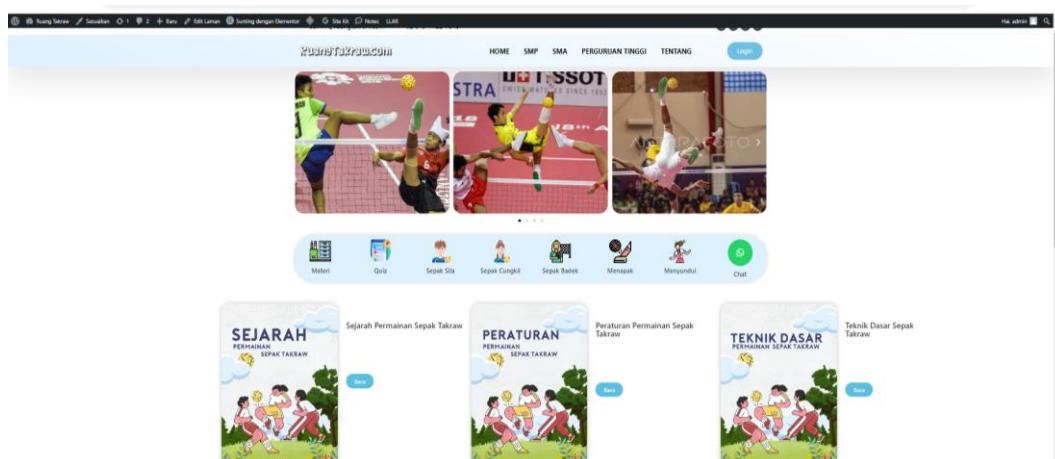


Figure 5.
After revision

From the results of this research, it was found that the development of web-based sepak takraw learning media for Physical Education students, FKIP, Sriwijaya University can be used and can be useful as a learning resource in the sepak takraw course. This is because, seen from the validation results, the average score from all aspects of the assessment is four point forty five (4.45) in the very valid category. From the student response questionnaire, this learning media was said to be practical to use, getting a practicality score of three point eighty one (3.81) in the very positive category. The results of the student learning test on the web-based sepak takraw learning media obtained a completeness of ninety point nine percent (90.9%) included in the high category. Media is one of the impacts of the sophistication of electronics or what is called the era of

digitalization, where almost everyone, from adults to small children, can use it. Electronic media in the form of media is currently an important component used in education in Indonesia. One of them is the education program at strata 1 (S1) Physical Education and Health study program, FKIP Sriwijaya University, the Physical Education and Health study program has many courses based on the independent learning curriculum, where learning media is very useful during the learning process both in the classroom, at home and anywhere. Physical education is education that involves physical activity with the aim of gaining physical abilities or skills. Physical education is education that seeks to improve human quality which is directed at forming character, personality, discipline, and can uphold sportsmanship (Hartati et al., 2018). In the learning process there are various kinds of learning models with each model having different goals (Syafaruddin et al., 2021). One of them is the sepak takraw course. Sepak takraw learning is learning that learns everything about the game sepak takraw, including facilities and infrastructure, techniques, rules, and others. In this case, web-based learning media is one innovation that is proven to increase student motivation in learning. Like research conducted by Januarisman & Ghufro (2016) that web-based learning media is one of the developments of M-learning or mobile learning, the advantage of this web-based media is that it is user friendly, namely that it is easy to use and practical when operating and using it. Therefore, it is necessary to carry out research to see an overview of the development of web-based learning media to support learning for Physical Education students in the sepak takraw course.

Media from an educational perspective is a very strategic instrument for determining the success of the teaching and learning process, because its existence can directly provide changes to students.. Iyakrus et al., (2022) Quality education can be achieved if the learning process is carried out smoothly, directed and in accordance with its objectives. The teaching and learning process will run effectively and efficiently if it is supported by the availability of media that supports the process. Web-based media is very helpful for learning at this time, especially during Covid-19 and its impact is still being used today. As said by Atmojo & Nugroho (2020) Technology makes it possible for people who are far away to interact via the web and can work on the same topic.

A website or web is a collection of site pages. A website is a component that includes text, images, sound, animation and others so that it can become a learning medium (Zahir, 2020). In developing and designing a website, there are stages that are carried out, namely identifying goals and objectives, conducting instructional analysis, determining entry behavior and student characteristics, writing performance objectives, developing e-learning

assessments that are guided by criteria, selecting learning materials and online activities. , and carry out evaluations (Ayu et al., 2021).

From the description above, this means that the web-based sepak takraw learning media in accordance with the RPS is declared very valid after looking at the material and media aspects, but various suggestions and input for improvements must also be taken into account. Like research conducted by Setyadi & Qohar (2017) in the development of web-based mathematics learning media on sequences and series material, it shows that the media developed is valid. Then research conducted by Salsabila & Aslam (2022) The development of Google Sites web-based learning media for elementary school science learning shows that the media developed is valid. Based on the results of research on the feasibility, practicality and effectiveness of the media that has been carried out, it can be stated that the Web-Based Sepak Takraw Learning Media as a learning resource for Physical Education students, FKIP, Sriwijaya University, the media developed is declared suitable for use.

CONCLUSIONS AND SUGGESTIONS

Based on the description and analysis of the research "Development of Web-Based Sepak Takraw Learning Media for Physical Education Students, FKIP Sriwijaya University", it can be declared suitable for use, it can be proven that the web-based sepak takraw learning media product as a whole is valid and has been tested for the appropriate level of validity, effectiveness and practicality. It can now be applied to the teaching and learning process in the sepak takraw course in the Physical Education study program, FKIP, Sriwijaya University. The final result of this research is a web-based sepak takraw learning media for Physical Education students, FKIP, Sriwijaya University. There is a need to develop learning for higher education students in other materials that are tailored to student needs, as well as the conditions of each study program so that teaching and learning processes can be more effective and efficient.

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