

Interactive Media as Optimization of Understanding Basic Football Techniques in Pandemic Period

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Abstract — During the Covid-19 Pandemic, there was a change in the learning process from face-to-face to online learning. Football learning that is implemented with practice in the field becomes an obstacle for teachers in the delivery of material conditions that make teachers have to think innovatively so that the delivery of material can be understood by providing interactive learning media football materials. This research aims to produce interactive multimedia football products in physical education sports health subjects used in the special learning proses during the Covid-19 Pandemic. The method used in this study is a research and development method that is divided into 3 stages, namely; (1) Pre-development stage, this stage is carried out to analyze the needs through survey of product needs level for users, instrument preparation and consultation to experts. (2) Development stage, developing products starting from designing the initial product and drafting the script "Multimedia Interactive Football", small group trials, phase I improvements, large group trials, phase II improvements, mass production. (3) Evaluation stage, implementation of product results and product denomination as learning media tools. The results of the implementation of research on learning through interactive multimedia on football materials are excellent with a percentage result of 80% because the material presented is complete and the form of material explanation is clear, saying both 15% and only 5% answered no.

Keywords— *Media Interaktif, Football, PJOK.*

I. INTRODUCTION

2020 has been a difficult year for all of us, until now Indonesia is still hit by the Covid-19 pandemic. Covid-19 is an infectious disease caused by coronavirus acute respiratory syndrome 2 (severe acute respiratory syndrome coronavirus 2 or SARS-CoV-2). The virus affects coronavirus families that can attack animals. When attacking humans, Coronavirus usually causes respiratory tract infections that cause death for sufferers. COVID-19 itself is a new type of coronavirus found in Wuhan, Hubei, China in 2019. Covid-19 has had a lot of

impact on all living things so efforts have been made by the government to reduce the case for covid-19 transmission. It is no exception that the learning process is one of the government's policies to reduce the transmission of the virus.

Addressing the issue, the Minister of Education and Culture of the Republic of Indonesia issued Circular Letter No. 4 of 2020 on the Implementation of Education Policy in the Event of Emergency Spread of Coronavirus Disease (Covid-19) point 2 which is the process of learning from home implemented with the following provisions:

- a. Learning from home through online/distance learning is carried out to provide a meaningful learning experience for students, without the burden of completing all curriculum achievements for class promotion and graduation;
- b. Learning from home can be focused on life skills education among others about the Covid-19 pandemic;
- c. Learning activities and tasks from home may vary between students, according to their interests and conditions, including considering the gap in access/learning facilities at home;
- d. Evidence or products of learning activities from home are given useful qualitative feedback from teachers, without the need to give quantitative scores/scores.

Offline and online learning resources are an option to bridge the flow of e-learning resources and the difficulty of escaping from the utilization of learning resources used in classrooms. It can be concluded that the online learning system and offline is a learning system based on Information and Communication Technology (TIC) remotely using an application that connects with many people /groups or individuals [1]. These conditions make teachers have to think innovatively so that the delivery of material can be understood by providing interactive learning media in football materials that students can later understand the purpose of the material. In addition, limitations in Internet accessibility, hardware and software, as well as financing are often a role in maximizing online learning resources [2]. The learning process is a process of interaction between teachers and students that occurs in two directions through active communication between the two. In order to reach the message in the form of learning materials to students so that the need for learning media. Interesting and

interactive learning media is needed so that the learning process can foster students' interest and motivation so that it is easy to remember [3],[4],[5]. Multimedia has promised great potential in changing the way a person learns, to obtain information, customize information and so on. Multimedia also provides opportunities for educators to develop learning techniques so as to achieve maximum results.

With the development of learning media can later be optimized and become a breakthrough for physical education teachers to add learning innovation in the interactive learning media of football materials. This should be the basis of the importance of interactive media to optimize learning during the Covid-19 pandemic. The explanation above with the presence of interactive media in the learning process that will be encouraged aims to produce interactive multimedia products of football in the subjects of Physical Education Sports Health used in the special learning peroses during the Covid-19 Pandemic.

II. METHOD

This research uses a research and development approach or development research by Borg and Gall. Understanding development research according to Borg and Gall "research and development is a powerful strategy for improving practice. It is a process used to develop and validate educational products". The understanding can be explained that "research and development is a strong strategy to improve the practice of [5]. It is a process used to develop and validate educational products." This research was conducted to produce a learning medium named after "TDSB" with the app. Research activities are carried out through several stages, namely; (1) Pre-development stage, this stage is carried out needs analysis through product needs level survey for users, instrument preparation and consultation to experts. (2) Development stage, developing products starting from designing the initial product and drafting the script "Multimedia Interactive Football", small group trials, phase I improvements, large group trials, phase II improvements, mass production. (3) Evaluation stage, implementation of product results and product denomination as learning media tools.

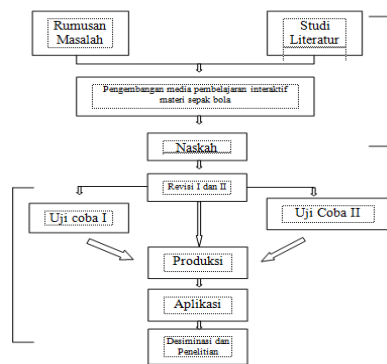


Figure 1. Research flowchart

This research instrument uses: using closed and open questionnaires. Closed questionnaires are used to determine the effectiveness and efficiency of the product. Open

questionnaires are used to determine the weaknesses and discrepancies of products to product needs and used during Focus group discussion (FGD). The data analysis techniques used in this study are: (1) the need analysis uses percentage techniques to see the level of product needs, (2) To measure the effectiveness and efficiency of the product using as a validity test with FGD techniques by 3 experts namely test and measurement experts, sports training experts and IT packs. (3) to see the effectiveness and efficiency of the product used phase I trials as many as 30 people and group II trials as many as 60 people using percentage and quantitative.

The research used by researchers in the process of validation of the feasibility of android-based "Chemical lab Work Guide" application as a medium of sma chemical practicum guidance is qualitative validation with data retrieval techniques in the form of live questionnaires/questionnaires of choice type. Data analysis in the form of product development process data, namely description data from media experts and materials experts as well as data assessment of the feasibility of learning media products by media experts and materials experts. Here's the average and conversion formula in the quantitative analysis:

TABLE.1. Qualitative Data Knversion

Skala	Kriteria	Rumus Interval	Rerata Skor
5	Sangat Baik	$X \geq Xi + 1,8 SB_i$	$X > 4,2$
4	Baik	$Xi + 0,6 SB_i < X \leq Xi + 1,8 SB_i$	$3,4 < X \leq 4,2$
3	Cukup	$Xi - 0,6 SB_i < X \leq Xi + 0,6 SB_i$	$2,6 < X \leq 3,4$
2	Kurang	$Xi - 1,8 SB_i < X \leq Xi - 0,6 SB_i$	$1,8 < X \leq 2,6$
1	Sangat Kurang	$X \leq Xi - 1,8 SB_i$	$X \leq 1,8$

Description:

(Xi) = Ideal average

Formula $Xi = \frac{1}{2}$ (maximum ideal score + ideal minimum score)

(SBi) = Ideal standard deviation Formula $SB_i = \frac{1}{6}$ (maximum ideal score – ideal minimum score)

(x) = processed scores

III. RESULTS

Of the needs analysis that has been done against 35 respondents consisting of students, 89% of respondents said that they had never done learning using interactive media and 11% never knew learning using interactive media.

The initial product design of interactive media football is a product that can help in learning in the time of covid-19 pandemic. This interactive multimedia football system starts by accessing this interactive multimedia application students can know the implementation of basic football techniques such as passing techniques, shooting heading and so on.

The next designed product is assessed by media experts and materials experts and after this stage will be tested phase I products with samples. The results of media validation provide some input.

TABLE 2. Validation of Media Expert Assessment Phase I

No	Indicators	Score	Category
1	Display Design	3,5	Good
2	Display Text	3	Enough
3	Programing	3,5	Good
4	Video	3	Enough
5	Audio	3	Enough

Amount	16
Average	3,2
Media Quality Category	Enough

The table above shows the results of the media expert's assessment of this football interactive media product only the design of the display and programming that gets a score of 3.5 with good category, the rest get a score of 3 and are still categorized enough. The results of the assessment of the football interactive media indicator with a score of 3.2 and still categorized sufficiently and there needs to be improvements to improve the product so that it can be tested to users.

TABLE 3. Validation of Material Expert Assessment Phase I

No	Indicators	Score	Category
1	Learning Images	3,5	Good
2	Learning Video	3,5	Good
3	Learning Materials	3,5	Good
4	Material Explanation	3,7	Good
Amount		14,2	
Average		3,55	
Media Quality Category		Good	

From material experts to interactive media assessment shows the results of the four indicators of the assessment of football interactive media products shows the assessment results of learning images, learning video, as well as learning materials get a score of 3.5 and the material explanation indicator scores 3.7 with good category. The results of the assessment of the football interactive media indicator with an average score of 3.55 and well categorized and the need for improvement to improve the product so that it is even better.

After doing phase I validation and getting some improvements for product enhancements then researchers make improvements to the product enhancements that will be done kembang validation phase II by experts. The results of phase II validation are as follows:

TABLE 4. Validation of Media Expert Assessment Phase II

No	Indicators	Score	Category
1	Display Design	4,5	Excellent
2	Display Text	4,3	Excellent
3	Programming	4,5	Excellent
4	Video	4	Good
5	Audio	4,2	Good
Amount		21,5	
Average		4,3	
Media Quality Category		Excellent	

The results of stage II validation by the media experts above show an assessment of this football interactive media product from display design indicators, display text and programming that get scores of 4.5 and 4.3 with excellent categories, while video and audio indicators with scores of 4 and 4.2 with good categories. The results of the assessment of the interactive media indicator of the football with an average score of 4.3 and categorized very well and subsequently the product can be tested kepada sampel.

TABLE 5. Validation of Material Expert Assessment Phase II

No	Indicators	Score	Category
1	Learning Images	4,3	Excellent
2	Learning Video	4,4	Excellent
3	Learning Materials	4,3	Excellent
4	Material Explanation	4,5	Excellent
Amount		17,5	
Average		4,37	
Media Quality Category		Excellent	

After the improvement of the phase I material expert validation, the researchers then validated phase II. Phase II validation results on learning image indicators and learning meters get a rating score of 4.3 with excellent categories. While the learning video gets a score of 4.4 and the material explanation gets a score of 4.5 with excellent category. The results of the assessment of all indicators on the material expert with an average score of 4.37 and categorized very well and worth the product trial.

After improving the validation results of the two experts, each provides input for interactive multimedia products that can later be used as a learning medium for football materials for students. This became the basis for researchers to conduct trials on sampel. Therefore, from the improvements that have been made, the interactive multimedia products of this basic football technique can be used in the I and II tests on the.

Group I trials were conducted by 30 students with the aim of assessing the feasibility of interactive media by filling out user due diligence questionnaires. This questionnaire is divided into media aspects, material aspects, and learning aspects. The data generated from the phase I trial is:

TABLE 6. Phase I Trial Results

Indicators	Score	Category
Media Aspects	4,07	Good
Material Aspects	3,58	Good
Learning Aspects	3,67	Good

Preliminary field trial results showed that interactive multimedia football developed by researchers scored 4.07 for the media aspect, 3.58 for the material aspect, and 3.67 for the learning aspect scoring an average of 3.79 or in the "Good" category. Media in this category deserves to be used as a learning medium.

Of the three indicators, the results of the phase I trial for the whole are still in the category of "Good" with the record still having to be improved to get the most out of the phase II trials.

The results of trial I were made improvements to improve the results of further research results from trial II conducted obtaining results:

TABLE 7. Phase II Trial Results

Indicators	Score	Category
Media Aspects	4,46	Excellent
Material Aspects	4,07	Good
Learning Aspects	4,36	Excellent

Diagram on Picture. The 4 shows the media scored an average of 4.46 or entered the category "Excellent" on the media aspect, 4.07 or entered the category "Good" on the material aspect and, 4.36 or entered the category "Very Good" on the learning aspect so that it earned an overall average score of 4.28 or entered into the category "Excellent" on the learning aspect so that it earned an overall average score of 4.28 or entered into the category "Excellent"”.

Of the three indicators, the results of the phase II trial were conducted for the whole in the category of "Excellent" so that the implementation and denomination of the product can be carried out.

IV. DISCUSSION

This research is reviewing the influence of interactive media as an optimization of understanding the basic techniques of football in the pandemic period. It can be believed that the process of learning during pandemics becomes an obstacle to students' understanding of football material. These constraints need to be an innovation in the learning process by using interactive media to improve students' understanding in the learning process. The findings in this study are in line with previous research showing that there needs to be an innovation in the learning process, in order to improve students' learning skills independently [6].

This research was conducted on grade VIII junior high school students with different schools in phase I and phase II trials. The results of the study in the phase I trial of the three indicators of media aspects, the meter aspect and the learning aspect for the whole are still in the category of "Good". While the results of phase II trials from the same three indicators show the results of the implementation of phase II trials for the whole in the category of "Excellent" so that later implementation and denomination of the product.

V. CONCLUSION

This result concluded that the development of learning innovations during the covid-19 pandemic was very much in question one of them by making the learning media interactive media of football. From the results that have been able to use interactive media as a ball can improve students' understanding in knowing the basic techniques in the game of football. In addition, effective and efficiency of products in pandemic learning is perfect for students' understanding.

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