

Development of Teaching Materials based on Flipbook Maker in Futsal Courses at Faculty of Sports Science University of Medan State

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Abstract. The corona virus pandemic experienced by all people in the world affects almost all aspects of life, including the education aspect. Lecturers must provide material through various network-based learning applications. The toughest challenge for lecturers who teach practicum is the difficulty of monitoring the development of skills and knowledge of students in practicing simulation exercises, and managing matches in learning the game of futsal. From these problems, it is necessary to use technology in the form of developing teaching materials based on the flipbook maker application, in this application there are learning videos and learning materials that can be accessed both online and offline through the android application. students to acquire competence both in terms of skills and knowledge, without having to meet face to face. One of the learning media that can create an interesting and conducive learning atmosphere is the use of flipbook maker-based electronic teaching materials

Keywords : Teaching, Flipbook Maker, Futsal

1 Introduction

Medan State University as one of the universities that will produce graduates who are superior, professional, competitive, and disseminate science, technology/art, innovative and productive works in responding to all challenges and changes that occur in the midst of society. So far, Medan State University has managed seven faculties and thirty-two study programs, one of which is the Faculty of Sports Science (FIK). Education is an important factor to advance a nation because with education it will print quality human resources. Education is one of the efforts to develop the potential of students through planned efforts so that students gain intelligence in the aspects of knowledge, skills and positive attitudes. Curriculum development continues to be carried out to improve the quality and quality of education in Indonesia.

The corona virus pandemic experienced by all people in the world affects almost all aspects of life, not least the education aspect. Lecturers and teachers must educate and provide material through various network-based learning applications. The toughest challenge for lecturers who teach practicum is the difficulty of lecturers to monitor the development of students' skills and knowledge in practicing training simulations, match simulations and managing matches in learning futsal games. From these problems, researchers think that there is a need for the use of technology in the form of developing futsal course teaching materials based on the flipbook maker application, in which the flip book maker contains learning

videos and learning materials that can be accessed both online and offline through the android application, as a learning space. students to gain competence both in terms of skills and knowledge, without having to meet face to face.

One of the learning media that can create an interesting and conducive learning atmosphere is the use of flipbook maker-based electronic teaching materials. The use of a flipbook maker can improve students' creative thinking and affect student learning outcomes.¹ Flipbook maker is a collection of images that are combined to give the illusion of movement and into simple animated sequences on a small book without the need for a machine. However, the flipbook maker that is currently in demand by the public is a digital book where book pages can be opened and read on a computer monitor screen. Explains that students are more interested in participating in learning by using a flipbook maker.². Teaching materials with the flipbook maker application make the display more attractive because it can open every page to be like a book on a computer so that it gives a dynamic effect. Based on this background, the researchers conducted a study entitled "Development of Flipbook Maker-Based Teaching Materials in Futsal Courses at the Faculty of Sports Science (FIK) Medan State University"

Research purposes

This research is a development research that aims to improve student learning outcomes through a flipbook maker, which will encourage development in the field of sports science, especially in learning futsal. The media developed in the form of learning applications will later help students learn futsal courses online and offline. It is hoped that later the development of the flipbook maker as a teaching material for futsal courses, will be an alternative to online and offline learning during the Covid-19 pandemic mass, where the application media created contains all lecture materials packaged in the form of video tutorials, videos, variations of learning, quizzes and other materials. Other supporting materials for futsal courses

Benefits of research

This research is mainly designed to (1) Contribute to the development of scientific repertoire in the field of technology-based sports education. (2) Making a Flipbook Maker-based application media product can help and facilitate students and lecturers in the process of teaching and learning futsal courses, both online and offline. (3. The development of the Flipbook Maker futsal teaching material media is expected to be an alternative interactive learning media in student teaching and learning activities

¹Rasiman. (2014). Development of Mathrmatics Learning Media E-Comic Based on Flipbook Maker to Increase the Critical Thingking Skill and Character of Junior High School Students. International Journal of Education and Research, 2(11):538.

²Mulyadi, Dendik Udi, dkk. 2016. Pengembangan Media Flash Flipbook untuk Meningkatkan Keterampilan Berfikir Kreatif Siswa dalam Pembelajaran Ipa di SMP. Jurnal Pembelajaran Fisika. Vol.4 No.4, hal 296 – 301.

2 Research Methods and Design

The method used in this research is development research. Research in this learning model uses a quantitative approach and uses the Research & Development (R & D) development model from Sugiono.

1. The first thing that is determined is the potential and problems that will be used as the initial basis for the development process.
2. Product design, namely the manufacture of media through a flipbook maker as a teaching material for futsal courses
3. Design validation, discussions are held with the experts concerned according to what will be developed before being tested.
4. Design Revision, before being tested, the draft of the information media design must first be assessed and revised by experts for adjustments.
5. Trial of product I in small groups using 2 classes, and carried out with try out the flipbook maker media that has been made to test its feasibility.
6. Product Revision, after being tested, the product was revised according to the assessment of experts and questionnaires from research subjects.
7. Large group product trial II, the results of the small group test revision,
8. Revision of the products of the two major groups, after trial and error
9. Mass production, product refinement to get to the final product

3 Research result

Research results the data used in the flipbook maker-based information media development model for students of Physical Education, Health and Recreation, Faculty of Sports Science (FIK). Medan State University is qualitative data, because it is expressed in sentences and not numbers, while quantitative data is obtained by changing the qualitative data by giving a score to the data that has been collected. The research planning stage begins with preparing literature on research and development as well as conducting a review of the Core Competencies (KI) and Basic Competencies (KD) of futsal course teaching materials that are adapted to the IQF curriculum. The next planning stage is to develop indicators that will be achieved in the development of futsal course teaching materials adjusted to the Core Competencies and Basic Competencies used. At the planning stage, research is carried out by starting to collect all data and equipment needed in the research and product development process. Literature study is an activity to collect data in the form of supporting theories related to the development of futsal course teaching materials to support interesting and interactive lecture media. Literature study activities include curriculum studies, RPS, text books related to the material for the basic futsal technique system, guidelines for physical futsal training, futsal game and match rules, and futsal goalkeeper training, textbooks on learning media for futsal courses. , text books on research and development of a product and some references from the internet. In addition, a literature study is conducted to review the Core Competencies and

Basic Competencies that will be used in developing indicators. Collection of reference data or literature studies on materials related to research and development of futsal course teaching materials are obtained from various sources of books, journals, articles or internet media. Technology is the systematic application of science or other knowledge in practical tasks. In other words, it can be explained that when we develop a product, the disciplines, procedures, tools and techniques that are put together will become an innovation. Salisbury (1996: 39). The characteristics related to globalization are that globalization needs to be supported by the speed of information, the sophistication of transportation and communication technology which is strengthened by a strong organizational and management structure. So that in the end this effort is expected to be able to create the development of the quality of sports technology to improve sports performance in various tiered and continuous sports, through appropriate and useful research using sports science and technology. enthusiasm and motivation of the younger generation, to do other research. Because a lecturer who is successful in teaching is when a lecturer is successful in using the results of his research in teaching and learning activities. The product development process is planning and making product designs that will be used as a medium for futsal courses. After conducting the needs analysis stage and collecting information related to research, a general description of the futsal course teaching materials that will be developed is obtained. The next stage is to develop the design of futsal course teaching materials, along with the products that have been made. The cover page of the futsal course teaching materials is clearly designed so that it fits the material that will be displayed in the application of the futsal game fundamental teaching materials. There is a picture of 1 cover design for futsal course teaching materials.



Figure 1. Cover of Futsal Teaching Materials

After making the front cover page or the cover of futsal teaching materials, the next step is making interactive basic futsal technical materials. The goal is that students are able to find out the extent to which students' basic futsal techniques are able to understand teaching materials and then practice them

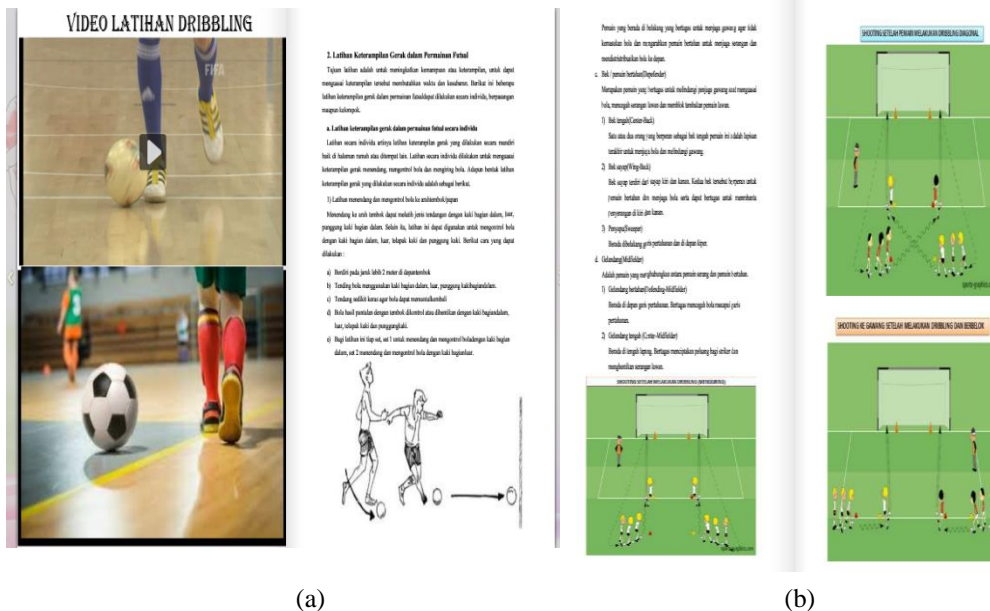


Figure 2. Futsal Fundamental Material (a) Video display of dribbling practice, (b) display of shooting practice materia

The digital book display design that is now in great demand by the public is a digital book with three-dimensional e-book technology known as a flipbook, where pages can be opened like reading a book on a monitor screen (Riyanto et al. 2012). Flipbook began to be developed for learning in schools. Research conducted by Ramdania et al. (2007) stated that the use of flipbook media in learning can improve student learning outcomes. This is influenced by students' interest in how it looks more attractive and interactive than printed books. This latest technology provides great opportunities for the use of digital books in science and distance learning (Gorghiu 2011). The results of field studies that have been carried out at the Physical Education and Recreational Health and Recreation Study Program (PJKR) at the State University of Medan can be seen that the facilities in the faculty such as computer labs and wifi are already available. Although technological equipment such as computers and wifi are complete, the usefulness of these technological tools in the field of education is still not optimal, especially in futsal courses. The computer lab is only used during Physical Education ICT courses. The lack of a touch of technological innovation in the learning media used is the basis for developing futsal course teaching materials. This media is expected to strengthen students' understanding of the sub-material of basic futsal techniques with new innovations of interesting lecture media.

4 Discussion

The results of research analysis with the development of flipbook maker-based futsal teaching materials can improve students' knowledge and skills in futsal courses on problems that occur at the Faculty of Sports Science, State University of Medan, it is found that the selected issues are very urgent and should be resolved immediately. The low interest in reading students towards the theory and practice of futsal courses. Of course, efforts must be

made to solve this problem. As is well known, the ability of students to master the basic techniques of futsal is a very important element in the ability of students to play futsal. that means this problem is really urgent and must be addressed immediately. Related to the low reading interest of these students, a module device is needed that will support the process itself. These tools can be in the form of basic futsal techniques, variations of futsal basic technique exercises, pictures of basic futsal techniques, futsal instructional videos and many others related to futsal courses. The problems that occur to students of the Faculty of Sports Science, State University of Medan are the low interest in reading students and the not yet optimal relationship between theory and practice learning. This condition causes students to lack insight into good and correct basic futsal techniques. If this problem is not addressed immediately, it will be very detrimental for students to obtain optimal futsal lectures. In addition, there are students who are hampered in mastering basic futsal techniques due to lack of knowledge about basic futsal techniques due to the lack of media to develop insight into basic techniques. The more students who do not master the basic techniques of futsal, it will have an impact on the conditions of the lectures which are far from the vision and mission of the Study Program and the Faculty.

Field trial data were collected using a questionnaire. So based on this field trial data, it can be collected some of the respondents' opinions regarding the flipbook maker-based futsal teaching material media obtained an average percentage of the appropriate answer choices of 90.06%. Aspects of practicing the basic techniques of futsal games that are obtained after reading and then viewing the video tutorials in the application get an average percentage of 92.87%. Based on the criteria that have been set, the aspect of the quality of the futsal game course teaching materials has met the criteria very well so that this aspect can be used. It is easy to practice the material in the application of teaching materials properly and correctly, the percentage is 91.85%. Based on the criteria that have been set, the application that has been designed to improve the basic techniques of the futsal game has met the criteria very well so that this aspect can be used. The aspect of trying to increase your insight is obtained by a percentage of 96.70%. Based on the predetermined criteria, the quality aspect produces a design of flipbook maker-based futsal course teaching materials, as a learning resource and alternative media, which can facilitate student learning, designed according to student characteristics, with the hope of increasing reading interest and knowledge of students in the futsal course in the Department of Physical Education, Health and Recreation, the futsal game has met the criteria very well so that this aspect can be used.

5 Conclusion

Based on the discussion of the material above, it can be concluded that the corona virus pandemic experienced by all people in the world affects almost all aspects of life, including the education aspect. Lecturers and teachers must educate and provide material through various network-based learning applications. The toughest challenge for lecturers who teach practicum is the difficulty of lecturers in monitoring the development of students' abilities and knowledge in practicing lecture material. This happens in futsal lectures, where one of the competencies of this lecture is that students must be able to become prospective teachers and trainers who can convey material both in theory and practice. From these problems, the suggestion from the researcher is that it is necessary to use technology based on the flipbook maker application as a student study room to gain competence in futsal courses both online and offline.

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