

Development of Learning Model Based on Blended Learning in Sports School

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Abstract—The Sports School is a school that facilitates student athletes to focus on practicing sports and achieve achievements in sports but also get formal education at the School. So that students will undergo many activities and must also be good at managing the time between exercise and learning education in the academic field. The specific objective to be achieved in this study is to find blended learning specifications and components in the Sports School and to develop a prototype of blended learning (online and offline) subjects at the Sports School. The research method used is development research and effectiveness testing. The study was conducted at Sports Schools in Indonesia such as Palembang, Jakarta, Sidoarjo, Samarinda and Makassar. Data obtained is 75% of students respond very positively to Blended Learning. As many as 50% of teachers stated that student learning outcomes were very good. As many as 50% of teachers said students were very motivated. So, Blended Learning is very suitable for use in the Sports School by looking at the characteristics and results obtained.

Keywords— *learning model, blended learning, sports school*

I. INTRODUCTION

Sports school is one of alternative facilities of development in pyramid system of sport founding to produce achievement. Through the sports school, talented athletes from various sport fields that are still in school age will be facilitated both in academic and sport learning. Through the sports school, it is expected that an athlete that experiences a problem in formal school can choose academic learning and reach achievement in sports.

By seeing the objectives and patterns of learning contained in the School of Sports, it makes the sports school have a system of education and learning management that is different from other public schools. Because relating to student achievement in the field of sports makes students sometimes have to leave formal learning activities in school. It could even be that students leave learning activities outside the region or province for a long time of about a month or more.

Students at the Sports School do have goals in achieving achievements in the field of sports. But students also have the right to obtain formal education in which they learn general subjects like students in general. So, the right management

system is needed to overcome this problem. Where students can do training obligations in the field of sports they are engaged in but students can still get education and learning for general subjects.

Actually, there is a solution to overcome this problem. The solution is learning that is conducted using the blended learning model. In other words, what can be done is to develop a learning system that is in accordance with the students' situations and conditions. Learning system that can be used is blended learning.

Blended learning is learning that combines several learning models which include face-to-face learning, offline learning, online learning and mobile learning (Chan, 2019) [5]. It means that besides face-to-face learning, learning can be done anywhere and anytime. So that students who undergo training or have competition outside the city for a long time can still learn general subjects by utilizing offline learning, online learning and mobile learning facility.

The results of the research conducted found that blended learning program has the potential to improve student learning outcomes and also reduce dropout rates compared to learning that is entirely online. Likewise, it was found that Blended based learning model was better than face-to-face learning (Dziuban, Graham, Moskal, Noberg and Sicilia, 2018) [7]. The researcher was confident that blended learning would be a support system of the learning done at the Sports School in Indonesia, looking at some of the results of these studies.

The Researcher found that the Sports School had different characteristics in the learning system and its objectives. So that it was also a consideration in determining the learning system for students. From the characteristics of the School system there would be characteristics of the learning styles of each student. So, the characteristics of all student learning styles would be various. Even so, blended learning can still be implemented in a sports school. There was a statement stated that the main purpose of blended learning is to provide opportunities for various characteristics of students so that independent, sustainable and lifelong learning takes place, so that learning will be more effective, more efficient, and more

interesting (Andreeva, Artyukhov, Myagkova, Pak and Akkasynova, 2018) [2].

In addition, the application of blended learning can help students to familiarize themselves with independent learning and interaction with learning resources other than teachers. Learning resources in question can be books, videos, sound recordings, interactive multimedia, electronic books, website-based learning media and also learning resources from peers. It can also increase the level of student social interaction. The details are presented by the figure 1 below.

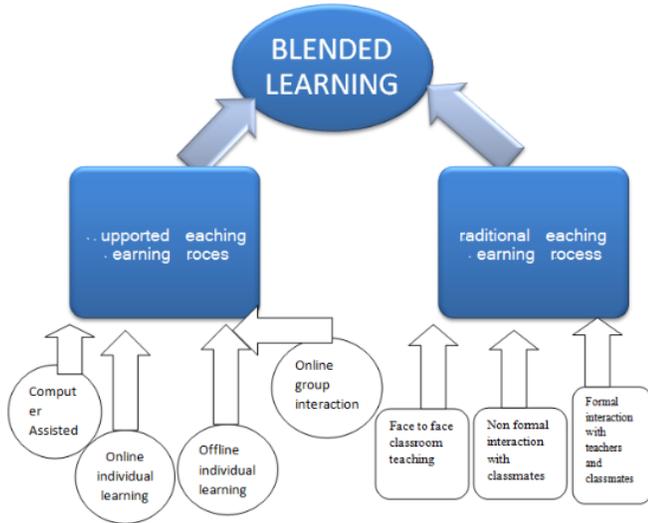


Fig. 1. Blended learning scheme (lalima dan dangwal, 2017)[9]

The basic thing in blended learning is the provision of facilities to implement it. One of them is learning resources that support offline, online and mobile learning. It is because the three learning models also become components in the blended learning (Bhowmik, Meyer and Philips, 2019) [4]. So that the teachers in the Sports School develop media learning resources that support blended learning as possible. Although on the website and internet there are many learning media supporting blended learning, teachers must be able to develop it themselves. This is because the media and materials that become the source of student learning will be relevant to the characteristics of students, school conditions, and also the level of intelligence of students as a whole (Meier, 2016) [10].

The researcher had conducted a survey of the needs and approval of the development of blended learning based learning models at Sports Schools in Indonesia. It was done as a base of the development that was really needed to be done and received approval from the research subjects. The results obtained by the survey were 76.8% of the respondents strongly agree that the development of blended learning-based learning models was done. 19.6.8% of the respondents agreed to develop blended learning based learning models. Then, 3.6% of the respondents did not agree to the development of

blended learning based learning models. The data is shown in the diagram in figure 2 below.

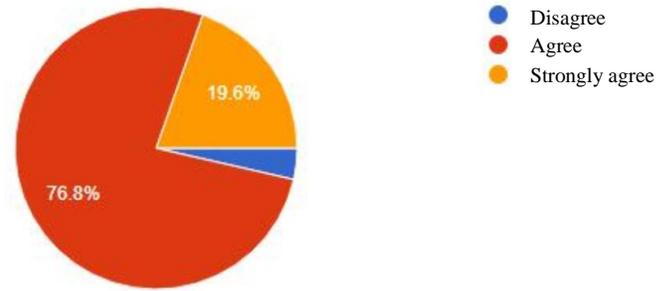


Fig. 2. The data of the need of the development of blended learning based model

In this study, the researcher provided training activities to some teachers at Sports Schools in several regions of Indonesia. The training was aimed at making the teachers have the skills to develop learning media supporting blended learning which could later be used for blended learning in their respective schools. The media developed by teachers could be in form of android applications, interactive multimedia, electronic books, learning videos, and also online quizzes which could later be used for student tests (Albhnsawy and Aliweh. 2016) [1].

Various explanations about research entitled "Developmet of Learning Based on Blended Learning in Sports School Model" had been explained above. So that the long journey of this research could be seen that it involved many parties. But researchers hope that this research can provide benefits and solutions for learning systems in Sports Schools throughout Indonesia.

II. METHODS

This research was a three-year gradual study. The first year was the stage of the analysis on the needs of the research subject. The second year was the stage of product development and testing. The third one was the stage of testing on the effectiveness and efficiency of the products through experiments. This article was the result of the second year, namely the product development and trial phase. So, the research method at this stage used research and development methods. The development conducted was the development of learning media supporting blended learning which would be used as learning resources for students. The development was conducted through training activities for several Sports School teachers in Indonesia.

III. RESULT AND DISCUSSION

In this study, Blended Learning-based learning training had been conducted on the subject of research, namely some teachers from sports schools which include Palembang Sriwijaya Sports School, Special Sports Senior High School of South Sulawesi Province, East Java Sports High School,

Ragunan Jakarta High School, and Special Schools International Sports in East Kalimantan.

Next, the data about the responses of the teachers as participants in the Blended Learning-based Learning training would be presented. The level of teacher understanding of Blended Learning-based learning was very high after the training. 97.3% of teachers stated that they understood Blended Learning based learning. More details can be seen in the diagram in figure 3 below.

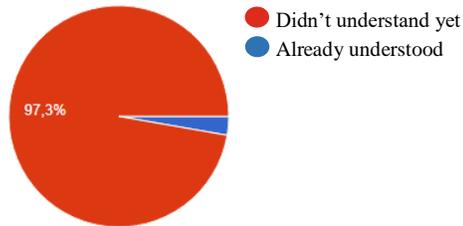


Fig. 3. Levels of teachers understanding of blended learning after training

Then, the researcher also indicated the teachers' understanding on the content of the training which included the development of Blended Learning supporting learning media. 100% of the teachers stated that they understood the concept of blended learning based learning. 93.4% of the teachers stated that they understood the development of PowerPoint-based videos. 87.9% of the teachers stated that they understood the development of Android-based electronic books. 95.1% of the teachers stated that they understood the development of online quiz media. 91.8% of the teachers stated that they understood the development of offline media quizzes. 86.3% of the teachers stated that they understood the development of learning using online platforms. The data is shown in the graph in figure 4 below.

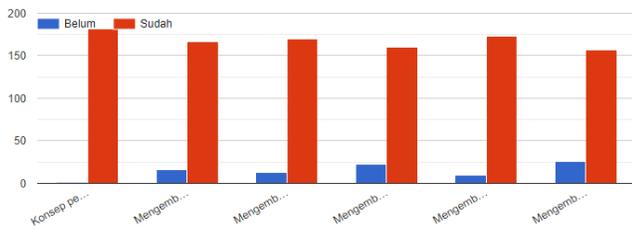


Fig. 4. Chart of participants' understanding of training content

The next data was about Blended Learning based learning media that had been developed by the teachers. At least 65.4% and at most 73.1% of teachers had developed at least one content-based learning media based on Blended Learning. For more details, the data is shown in table 1 below.

TABLE I. PERCENTAGE OF THE TEACHERS IN DEVELOPING BLENDED LEARNING BASED MEDIA

BL Component	Not yet	1 Content	2 Content	3 Content
Electronic book	6,6%	65,4%	20,9%	7,7%
Power point based video	12,1%	73,1%	11,5%	3,8%
Android based electronic book	12,1%	70,9%	13,7%	3,8%
Making classes on online learning platforms	15,9%	68,7%	9,9%	6,0%
Online Quizzes	11,5%	70,3%	13,2%	5,5%

After the training, all teachers conducted Blended Learning based learning in their respective school environments. Furthermore, the data was also obtained regarding the implementation of the Blended Learning-based learning.

The data on students' responses to the use of Blended Learning-based learning were; 75% of the teachers stated that students very positively responded Blended Learning-based Learning that was implemented, 25% of the teachers stated that students positively responded to the Blended Learning-based Learning that was implemented. The data is presented in the graph in figure 4 below.

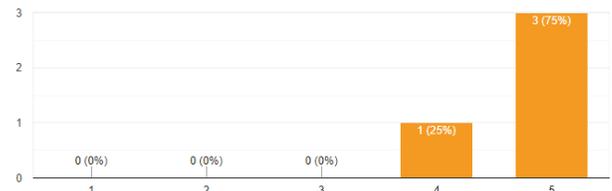


Fig. 5. The level of students' responses to blended learning based learning

Then, the data obtained was also about student learning outcomes which were the effects of Blended Learning based learning. The result was 50% of the teachers stated that student learning outcomes were very good, 50% of the teachers stated that student learning outcomes were good. The data is shown in the graph in figure 5 below.

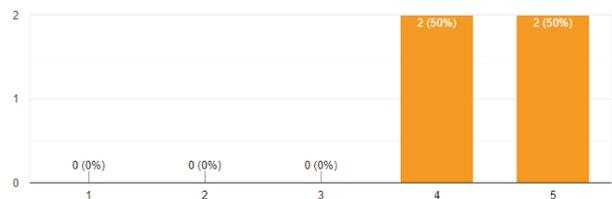


Fig. 6. Level of student learning outcomes as the impact of blended learning based learning

Furthermore, the researcher obtained the data of the efficiency of Blended Learning-based learning conducted at the school. The data obtained was 50% of the teachers stated that Blended Learning-based learning was efficiently conducted. Then, 50% of the teachers stated that Blended

Learning based learning was very efficient. The data is shown in the graph in figure 6 below.

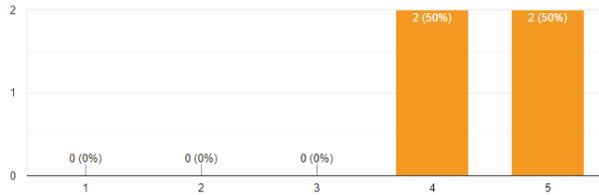


Fig. 7. The level of efficiency of blended learning based learning

The next data was about students' motivation towards Blended Learning based learning. The result shows that 50% of the teachers stated that students were motivated towards Blended Learning-based learning. 50% of the teachers stated that the students were highly motivated towards Blended Learning-based learning. The data is shown in the graph in figure 7 below.

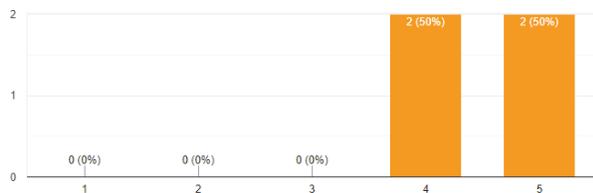


Fig. 8. The level of students' motivation towards blended learning based learning

The data obtained could be used to study the application of Blended Learning at Sports Schools in Indonesia, like data on the teachers' understanding of blended learning which shows the results were very high above 90%. It also shows that the Sports School already had the capital to implement Blended Learning because the teacher is a determinant in the management of learning for students (Cheng, Lin, Lu, and Singh, 2019) [6].

The teacher understood not only blended learning, but also how to develop various learning media that will be used as learning resources when implementing blended learning in schools. This could be seen in the data of the teachers who understood the development of learning media with an average percentage of understanding of 85% and above. Mandatory teachers could develop learning media independently because the material packaged in the media was adjusted based on the level of material to be provided and material adjustments according to the character of the school and students. Only teachers could make these adjustments so that it become very important that teachers should be able to develop learning media used for blended learning (Ward, 2018) [12].

The mastery of the development of instructional media done by the teachers was increasingly valid by the showing

the data of media that had been developed. Previously, it was explained that at least 65.4% and at most 73.1% of the teachers had developed at least one content-based learning media based on Blended Learning. Blended learning could be implemented even though the teacher only developed one content for each type of media. Because the most important thing in blended learning is the learning resources that students use through learning media must already exist. Thus, blended learning can be conducted (Wiklund, 2018) [13].

Then, after blended learning was conducted, the data was obtained that the responses of many students were positive. It could be interpreted that blended learning could be accepted by students, according to the needs of students, in accordance with the character of student learning and which was definitely in accordance with the conditions faced by students. If blended learning is responded positively by students, then blended learning can be developed even more (Khan and Gabriel, 2018) [8].

In addition, the data on student learning outcomes also showed that the students positively followed a blended learning based learning process. Blended learning was increasingly recommended for sports schools in Indonesia because the basis of the success of a system and learning model can be said to be successful if it can improve student learning outcomes (Aslan, 2017) [3].

The time needed to achieve good learning outcomes was also efficiently seen from the data presented above. The learning system would be better if it improved student learning outcomes and also shortened the time for student learning. So, the students could use the remaining time to explore their interests and talents (Raina, 2016) [11].

The data also shows that student motivation towards learning based on blended learning was positive. So, the students felt comfortable in following the learning process. Although the factors of comfort were unknown, but, at least blended learning provided comfort to the students. This is educators' the most sought thing because not all educators can provide comfort to students through the learning model used (Zahorska, 2016) [14].

IV. CONCLUSION

Based on the descriptive analysis and various data exposures, it can be concluded that Blended Learning based learning was appropriate to be implemented in the Sports School environment. It is because the level of student mobility was very high and also considering students must practice for achievement in the field of sports and in the academic field. Therefore, Blended Learning based learning is highly recommended in the Sports School environment. Moreover, according to the data shows positive impact and response to the Blended learning-based learning model from students and other teachers in the School environment which is the place to conduct trials of the implementation of blended learning-based learning.

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