

The Development of Schoology-Based Blended Learning Model to Improve Student Motivation of National Training Center (PELATNAS) Athlete

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Abstract—Most student experience some difficulties in managing their study and training. The aim of this research is to develop schoology-based blended learning model to improve the motivation and learning outcomes of PELATNAS student athletes at Sport Sciences Faculty. This research used development research design. The research started with collecting data about the need for appropriate learning system for student athletes. The validation results from the experts stated that the schoology based blended learning model was good enough. Based on the results of the test and content validity ratio (CVR) analysis on 41 students of Sport Sciences Faculty, 88% students perceived that schoology-based blended learning model is very good and 12% students felt good about this model. Moreover, analysis of motivation data show that as many as 17 students or 41.5% have a very high motivation category, while the remaining 24 or 58.5% of students have high motivation.

Keywords: *athlete, blended learning, schoology, motivation*

I. INTRODUCTION

Students are the next generation who must be prepared with various knowledge and skills that are in accordance with the needs of society and the progress of the times. In the era of education in the industrial revolution 4.0, the Indonesian nation was also faced with various changes in the world of education, especially with the emphasis on the use of the internet as a learning medium. In this era, technology has become a vital need for humans to fulfill various and daily tasks. Likewise in the world of education, the millennial generation is required to master technology in achieving educational effectiveness [1,2].

The existence of various sports competitions for students and students brings its own consequences for most students to compete in achieving sports achievements. To achieve optimal performance, it certainly cannot be separated from the training program that is carried out systematically and continuously. For student athletes, the demand for sports achievement and academic success brings the consequences of difficulty in managing time. In addition, research found that self-management in the academic field between athletic students and non-athletes also different [3]. Non-athlete students have higher academic self-management than athletes so that student

athletes in general will have difficulty achieving academic achievement if there is no suitable learning method.

Athletics is one of the compulsory courses for students in the Faculty of Sports Science, Universitas Negeri Surabaya. In general, the scope of athletic learning includes numbers: walk, run, jump and throw. For athletes who focusing on national training (PELATNAS), especially at the student level, lecture activities that should be followed regularly on campus will be hampered if training is being conducted at PELATNAS. They are required to follow the training program created by the trainers but on the other hand they are also expected to complete the lecture activities. To overcome this problem, it takes a learning system specifically designed to meet the needs of student athletes in achieving the success of their studies.

Blended learning is a format rapidly spreading in education worldwide [4]. Blended Learning is a combination of various approaches in learning. So that it can be said that Blended Learning is a learning method that combines two or more methods and approaches in learning to achieve the objectives of the learning process. The term Blended Learning according combines the best aspects of online learning, structured face-to-face activities, and real world practice [1] Online learning systems, classroom training, and on-the-job experience have major drawbacks by themselves. The Blended Learning approach uses the others' weaknesses.

Blended Learning is a combination of online learning, face-to-face learning and experience in the real world. The combination of the above components can provide its own advantages in learning outcomes from students. [5]. Stated that blended learning integrates or blends learning programs in different formats to archives a common goal" which can be interpreted as Blended Learning to integrate or combine learning programs in different formats in achieving general goals. Meanwhile, blended learning as "the opportunity to integrate innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning. [4]. This system describes learning mixed as "representing this opportunity to integrate the innovative advancements and technologies offered by online learning with interaction and participation offered in the

best of traditional learning". There are differences in active learning time in students with blended learning based on lectures and based on a problem-based approach. Students with problem-based blended learning are more active when they are learning compared to those who are based on lectures [6]. Three similarities or characteristics and definitions of Blended Learning: 1) a combination of learning models, 2) a combination of learning methods, 3) a combination of online learning and face-to-face learning.

Blended Learning is needed when the situation demands a combination or mixing various media methods, and techniques for achieving learning goals, for example when distance learning is not so needed, face-to-face learning is needed. This blended learning process is needed in students who need addition and combination in learning. Blended Learning has two main categories, namely: a) improved forms of face-to-face activities (lectures), and hybrid learning that reduces face-to-face activities (lectures) but allowing students to study online.

Blended Learning has three components of learning which become one form of Blended Learning, namely online Learning, face to face learning and independent learning. Online learning is an educational material that is characterized by computerization. In Asynchronous Online Learning can send material at any time, while Synchronous Online Learning allows real time interaction between students and instructors online learning emphasizes that e-learning is done on the use of internet technology to send information that can improve knowledge and skills [7]. It can be concluded that online learning is a learning environment that uses internet technology, intranet, and web-based in the context of learning and learning among fellow students or by teaching anywhere and anytime. [1,4,8,9].

Face-to-face learning is a learning model that is still ongoing and is very often used in the learning process. Face-to-face learning is a form of conventional learning model that brings teachers and students together in one class to study. The characteristics of face-to-face learning are: planned, place-based and social interaction. In face-to-face learning the teacher or student will use various methods in the learning process to make the learning process more active and interesting. Many other methods; lecture method, assignment, question and answer and demonstration. Independent learning is a system that allows people to learn to write independently from printed material, broadcast or pre-recorded material that has been prepared in advance. Thus, independent learning as a method can be defined as learning that positions students as responsible persons, control holders, decision makers or decision makers in learning and achieving learning achievement with or without the help of others.

Characteristics of independent learning systems according to the University of Maryland Distance Education Institute is freeing students not to have to study in one place at a time. A variety of materials (materials) including study guides and syllabi are provided and access to all members. Communication between students and instructors through a combination of several information technologies

This research is very urgent to do considering that national or international athletes have the status as a student. Become a student who is very good in sports performance (non academic) but also in completing learning in his school (academic).

The parameters for passing of courses in most educational institutions or universities are determined by the attendance, activeness, and test values carried out in writing (paper and pencil). For an athlete who is in training camps both at the regional level (Puslatda) and at the national level (Pelatnas), these conditions are difficult to fulfill. With such parameters, many student athletes become victims of the existing system so that some courses do not pass. This condition certainly decreases the motivation of students to learn because there are no facilities or media that can be used to study according to the demands of the existing Semester Lecture Plan (RPS).

Schoology is a site that combines social networks and learning management system (LMS) so users can engage in social interaction and learning as well as Edmodo and Moodle. A strong LMS must be able to do the following; a) using self-service and self-guided services, b) collect and deliver learning content quickly, c) consolidate training initiatives on scalable web-based platforms, and d) supports portability and personalization of content standards and allows reuse of knowledge. Blended Learning based on Schoology is a learning that combines face-to-face learning and online learning using Schoology application outside of school hours. Students who used Blended Learning based on Schoology get more additional theories outside school hours individually, so that the face-to-face meetings to provide the theoretical material can be reduced and replaced with practicum to the student [10].

The features of schoology comprise courses, groups and resources. Courses which are facilities for creating subject classes, for example Mathematics, Physics, and so on. This course facility is also in Moodle. Groups, that is, facilities for creating groups. This facility is also on Moodle and on Facebook. Resources (Learning Resources).

In the Course menu, quizzes / questions (this feature is not owned by Facebook) that are of many types, namely multiple choice, right wrong, matching, short stuff, etc. can be made. Schoology provides more resources than what is provided by Edmodo. Schoology can also accommodate the type of question (question bank) that we will use in the Quiz. Another advantage of Schoology from Edmodo is the availability of Attendance facilities, which are used to check student attendance, as well as Analytic facilities (not supported by Moodle) to see all student activities on each course, assignments, discussions and other activities that we prepare for students. Through this analytic feature, any student activity is usually spent can be monitored when students are logged in.

A. Motivation in Learning

Various behavioural theories generally explain the two main bases of a person's behaviour, namely behaviour based on biological needs to maintain life and behaviour to get appreciation or avoid punishment as one of the most important components of learning, motivation is one of the most difficult aspects to measure [11]. The willingness of students to want to

learn is the product of many factors, which range from the personality and abilities of students to the characteristics of certain learning tasks, incentives to learn, the atmosphere and behavior of teachers. Motivation can be defined as the intensity and direction of effort [12]. Intensity refers to the quantity of effort, while direction refers to what you are drawn too. Evidence suggests that enhanced motivation promotes learning, performance, enjoyment, and persistence in sport, among other benefits.

II. METHODS

This research used research and development design. The learning model was developed based on the results of Focus Group Discussion (FGD) with student athletes, athletic trainers and lecturers who are experts in the field of athletics. In addition, the design of this learning model was also compiled with various related research journals. The design of the learning model is prepared by considering the criteria: (1) the availability of lecture materials, (2) presented in the form of electronic material (e-book) and clear and interesting video tutorials (3) an attractive and motivating display for learning independently. After the design of the learning model is arranged, the blended learning based on schoology for athletics course has been validated by the learning experts.

A. Subject of Research

The subjects of this study were student athletes who joined in a concentration of sports training both in the region (PUSLATDA) and at the national level (PELATNAS). But in this study the subjects used as trials were students of the Sport Science department at Universitas Negeri Surabaya. The purpose of this trial is to know student responses in using schoology-based blended learning in athletic subjects

B. Instruments

- Test instruments used by expert validation and to know student responses to schoology-based blended learning are adapted from The Joint Committee on Standards for Educational Evaluation which includes four aspects, namely utility, feasibility, accuracy and propriety [13]
- The instrument for measuring motivation adapts from the Academic Intrinsic Motivation instrument
- In this study validation test uses content validity ratio (CVR). In the CVR approach, a number of respondents were asked to indicate whether a measurement item was important and in accordance with the objectives. Respondents' results are then used to calculate CVR for each item with an answer score of 0 = irrelevant, 1 = less relevant 2 = relevant. Based on the results of the respondents, then calculated using the following formula.

$$CVR = (N_e - N/2) / (N/2)$$

Information:

CVR = content validity ratio

N_e = Number of panellists who give assessment 2

(relevant / important)

N = Number of all panellists

The CVR score for each item can range from 1 to -1. A high score indicates high content validity for the item. An item that has a CVR = 0 indicates that half the panel provides an item rating as an item that is relevant to the domain being measured [10]. The CVR value obtained in each item is then matched with the minimum value CVR table based on the significance test of p ≤ 0.05 presented by [14].

Minimum Value of CVR Based on Significance Test p ≤ 0.05

TABLE I. MINIMUM VALUE OF CVR BASED ON SIGNIFICANCE TEST DATA

Number of Panelists	Minimum Value
5	0,99
6	0,99
7	0,99
8	0,78
9	0,75
10	0,62
11	0,59
12	0,56
13	0,54
14	0,51
15	0,49
20	0,42
25	0,37
30	0,33
35	0,31
40	0,29

III. RESULT

The changing process of learning system from the traditional (face to face) to be more online system is not easy. That condition need support from the learning environment, peer support, and compatibility of the campus curriculum so that the transition of the learning system can be successful [15]. Based on the results of the validation of teach technology experts, athletic lecturers and developmental psychologists, it can be seen that the design of schoology-based blended learning skills in this athletic course has fulfilled all four aspects related to learning, namely utility, feasibility, accuracy and propriety. In the aspect of utility and politeness (propriety) has fulfilled the rules of learning, but in this aspect of online product feasibility, it still needs to be enriched with self-developed video learning resources. Furthermore, in the aspect of accuracy, the selection of online learning needs to be harmonized with face-to-face learning and offline learning

The results of the student response analysis testing the use of schoology-based blended learning based on data resulted in 88% of students feeling that this schoology blended learning based learning was very good and 12% felt good. For CVR analysis in each aspect can be seen in table 2 below.

TABLE II. CVR ANALYSIS OF STUDENTS RESPONSE

Aspects	item	CVR Analysis			Results
		Ne	N	CVR	
Utility	1	36	41	0.76	Valid
	2	34	41	0.66	Valid
	3	40	41	0.95	Valid
	4	31	41	0.51	Valid
	5	18	41	-0.1	Invalid
	6	36	41	0.76	Valid
	7	39	41	0.9	Valid
Feasibility	1	34	41	0.66	Valid
	2	33	41	0.61	Valid
	3	33	41	0.61	Valid
	4	33	41	0.61	Valid
	5	38	41	0.85	Valid
	6	32	41	0.56	Valid
	7	30	41	0.46	Valid
Accuracy	1	37	41	0.8	Valid
	2	24	41	0.17	Invalid
	3	25	41	0.22	Invalid
	4	23	41	0.12	Invalid
	5	34	41	0.66	Valid
	6	38	41	0.85	Valid
	7	29	41	0.41	Valid
Propriety	1	36	41	0.76	Valid
	2	36	41	0.76	Valid
	3	38	41	0.85	Valid
	4	37	41	0.8	Valid
	5	36	41	0.76	Valid

Based on the results of the analysis, it can be seen that in the aspect of accuracy, this schoology-based blended learning design still needs to be refined. Respondents felt that schoology-based online learning system had not been able to fully improve student motivation and learning outcomes. This is understandable because for practical lectures such as athletics, students still need face-to-face meetings to get feedback regarding the mastery of the movement that has been mastered. This is not enough to be discussed only with questions or uploading videos through an online system. In addition, the success of the implementation of this system is also very dependent on the independence or self-regulated learning of the student. For that reason, in the following year, improvements will be focused on the accuracy aspects of blended learning models to improve student motivation and learning outcomes.

Based on the analysis of motivation data can be seen that as many as 17 students or 41.5% have a very high motivation category, while the remaining 24 or 58.5% of students have high motivation. The use of blended learning in universities is increasingly needed in the era of the industrial revolution 4.0 because this system allows flexibility of time and place for

students to study [16]. The latest research results show that the implementation of blended learning can develop three aspect of education, namely (1) supporting the existence of sustainable education, (2) forming a learning environment that is friendly and saves resources; and (3) eliminate the gap between women and men and create equality by eliminate the distance between people who live in the countryside and the city [17].

IV. CONCLUSION

Based on the results of the research that has been obtained, it can be concluded that learning of schoology-based blended learning model in athletic subject is needed for National Training Center student athletes. Meanwhile, in the accuracy aspects of schoology-based blended learning design in athletic subjects still need some improvements. In conclusion, schoology-based blended learning model can increase learning motivation of National Training Center student athletes.

ACKNOWLEDGEMENT

Thank you to the Directorate of Research and community service that has provided funding for research. I also thank you for the athletes and coaches who have supported and the campus of Universitas Negeri Surabaya.

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