

EDUCATIONAL TECHNOLOGY WORLD CONFERENCE 2016

PROCEEDINGS VOLUME 1

"Educational Technology to Improve Quality and Access of Education for Prosperous Society"





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PROCEEDINGS Volume 1

Educational Technology World Conference (ETWC) 2016

Theme:

"Educational Technology to Improve Quality and Access of Education for Prosperous Society"

Editors:

Prof. Atwi Suparman Prof. Burhanuddin Tola Prof. Ivan Hanafi Prof. Karnedi Dr. Trini Prastati Dr. Yuli Rahmawati

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PROCEEDINGS: Volume 1

Educational Technology World Conference (ETWC) 2016

"Educational Technology to Improve Quality and Access of Education for Prosperous Society"

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Speech Chairperson of Organizing Committee ETWC 2016 Prof. Dr. Atwi Suparman

Distinguished Speakers Distinguished Guests Ladies and Gentlemen,

Assalamu'alaikum Wr. Wb. Peace be upon you with Allah's mercy and blessing May God bless us all. Amen.

May I take this opportunity to welcome you all and to extend a further word of welcome to everyone here. I would like to extend my graditute to Rector of Universitas Negeri Jakarta, Universitas Terbuka, Universitas pendidikan Ganesha, Universitas Mahendradatta and Head of Kopertis Wilayah VIII that have accommodated and organised this first-ever world class conference of educational technology in Indonesia. We once again thank Bapak/Ibu Rektor and also Kepala Kopertis Wilayah VIII for the time, energy, support, assistance and also funding. The committee would also like to thank all sponsors that support ETWC 2016.

The opening day and a few days forward of Educational Technology World Conference 2016 are certainly the moment we have been looking forward to, as preparing this world class academic forum is not something a fairy Godmother could do – waiving the magic wand and turning the poor little girl into a charming beautiful princess. For this, my highest appreciation goes to all committee members, streering and organising committee and also AECT team that have spent their time, energy and thought not only in convening this conference, but more importantly in making this world class conference a momentum in improving the quality of education. I also believe all of us, especially the keynote and plenary speakers, the parallel and round table sharing session presenters here, will do their best in this conference – sharing and discussing their thoughts and ideas for the good of improving the quality of education in our great nation. For these, I thank you all.

Ladies and Gentlemen,

Looking back at the moment this conference was firstly initiated, it all started in a vision. We envisioned a dream of convening a world class academic forum in Indonesia which in the previous years had been predominantly held in the United States coordinated by Association for Educational Communications and Technology (AECT). Three years ago, in 2013, we attended AECT International Convention in Anaheim, California, in 2013 and discussed with AECT officials the possibility of conducting a world conference in Indonesia. The meeting resulted in the possibility of holding ETWC. One year after that, a small group of UNJ chief officials and I attended AECT annual conference in Jacksonville. At that time AECT agreed for UNJ to hold educational technology world conference in Indonesia this year. Not long after that, we gained support from several universities, i.e. Universitas Terbuka, Universitas Pendidikan Ganesha, Universitas Mahendradatta, and Kopertis Wilayah VIII. Therefore we would like to thank them all for the support.

Ladies and Gentlemen,

The committee has received 287 papers. The total number may possible increase untuil the opening day of the conference. Among those 287 papers, 146 papers will be presented at the parallel sessions whilst 141 papers will be presented at the round table sharing sessions. We provided 10 rooms for the parallel sessions and 8 rooms for the round table sharing sessions. The committee has prepared tokens of appreciation for 30 best papers and made a special arrangement with the help of AECT for the opportunity to publish selected best papers in a book published by Springer. The selection process will be conducted by distinguished invited speakers coordinated by Mike Spector as well as the internal reviewers.

Ladies and Gentlemen,

Bali is chosen as a perfect place for us to exchange and discuss our ideas and thoughts not in a restless, strained, rushed condition (like the one we usually have in big cities, such as Jakarta), but more in a "heavenly-relaxed", but serious way. After all, as many people have said, Bali is the Island of Gods. It is the place where Gods create their heaven on earth. Thus, in this Balinese atmosphere, let us pour our best thoughts and exchange our brilliant ideas for the good of education quality improvement. Have a pleasant fruitful conference.

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Thank you. Bali, 31 July 2016 Prof. Dr. Atwi Suparman Chairperson of the Organising Committee

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Jurusan Kurikulum dan Teknologi Pendidikan Fakultas Ilmu Pendidikan Universitas Negeri Padang

Abstrack

The purpose of this study was to test the effectiveness of formulation of blended learning validated and it's practicality was counted from previous study. The model used for the overall study was ADDIE model of the five stages, namely Analysis, Design, Development, Implementation, and Evaluation. This second year was the implementation phase to test the effectiveness of the formulation blended learning strategy on the School Curriculum Studies subjects. The activity began with implementing the learning process using blended learning strategy formulation with the formula of online learning and face-to-face 62.5% 37.5% applied to 40 students. Based on data analysis has been conducted on students' final grades obtained by the value of the t test at the 0.05 level of 0.032. This proved that there were significant differences between the results of learning to use the strategy formulation blended learning with face-to-face lectures on the implementation of the curriculum in the Department of Curriculum and Educational Technology. In other words, the strategy formulation of blended learning was more effective than lectures conducted by face-to-face. The implication of this study need to be formulated of combination formulations face to face and online learning based on the characteristics of lecture material.

Keyword: effectiveness, formulation, strategy, blended learning

Introduction

The Implementation of curriculum which lasts ideally should based on national standards of education in accordance with the Regulation number 32 in 2013 implemented since primary education, secondary to university. Implementation of effective curriculum also should be applied to all fields of study at each level of education to produce quality graduates. For the learning process follows the standard process, that education was held in an interactive, inspiring, fun, challenging, motivating learners to participate actively and provide enough space for innovation, creativity, and independence in accordance with their talents, interests, and physical and psychological development of learners.

One of the subjects in the Department of Curriculum and Educational Technology at the Faculty of Education is the School Curriculum Studies. Through this subject students are expected to know, understand and apply the concepts of curriculum studies at school. In lecturing process, students are expected to apply the concepts of curriculum and assessment as well as its analysis of the current curriculum. The curriculum analysis is focused on the curriculum 2006 and 2013 especially about the structure and the concepts of the curriculum.

In relation with this, the implementation of the curriculum is essential in the stages of education. According to Alwen (1993: 23) the learning activities are conducted in order to realize a curriculum that is still potential (written) into actual is the implementation of the curriculum. It can be said that the implementation of the curriculum is the result of the lecturer's translation toward curriculum as a written plan that is poured into students' learning experience in learning activities

When referring to regulation 32, 2013, the implementation of the curriculum in the practice is less interactive because in the process of implementation, there is a less situation that is expected as listed on the PP. These conditions need to be addressed by designing the concept of implementing the curriculum become a learning process that is interactive, inspiring, fun, challenging, motivating learners to participate actively and provide enough space for innovation, creativity, and independence in accordance with their talents, interests, and development Physical as well as psychological learners. Many collage facilities can be optimized their utilization, such as the Internet to create a learning atmosphere that is referred to above. Accordingly, in the first year of the study, researchers team develop and validate the strategy formulation of blended learning for the School Curriculum Studies subject in order to implemention curriculum in the department of Curriculum and Educational Technology FIP UNP. The blended learning strategy formulation is 62.5% of online learning and face-to-face lectures 37.5%. In the second year, it followed by calculating and explaining the practicality of the formulation

Harding, Kaczynski dan Wood (2005) state that Blended Learning is the learning that is integrated face to face traditional learning and distance learning (online) with variety of communication that can be used by lectures and students. The implementation of Blended learning enable the use of online learning especially web based without leaving face to face activity. In addition, MacDonald (2008) states that *blended learning* is assosiated with using online media in learning, and in the same time is conducting face to face learning with conventional. Based on expert's opinion above, the researcher formulate the blended learning with distance learning as proposed by Harding, Kaczynski, Wood and Mac Donald. But formulating

the number of material presentation through online learning and face-to-face learning based on the characteristics of the subject material. The development of product in the form of blended learning strategy formulation should be evaluated to determine the practicality after it is implemented in the School Curriculum Studies subject.

Research methods

The type of research was the development research. The model used was ADDIE model developed by Reiser and Molenda (Bown & Green, 2011; Goddess, 2009. The model has five stages, namely Analysis, Design, Development, Implementation, and Evaluation. In the second year it hds reached the stage of implementation to know the effectiveness of strategy formulation blended learning on School Curriculum subject. The process of testing the effectiveness begin with implementing the learning process by using the formulation of blended learning strategy on school curriculum subject toward small groups was three people, middle group was 7 people and large group was 40 people. Then the students' learning outcome who used blended learning strategy formulation was compared to students who attended face-to-face lectures

Result

Based on the development and validation of formulation blended learning strategy, was 62.5% of online learning and formulation face-to-face meetings was 37.5%. The implementation at face to face meetings using the course handout distributed by lecturers and online learning by using media learning website (www.kajiankurikulum.com). The test of effectiveness of the strategy formulation blended learning course on the School Curriculum Studies was conducted on students who were active and registered in semester from January to June 2015. The effectiveness is an activity to review whether the activity that has been done achieve the goals. After, the product is produced and tested in the learning activities it is necessary to evaluate the results of learning to see the achievement of the formula strategy implementation of blended learning in curriculum implementation. The phase of effectiveness is the last stage in the development model, namely the evaluation phase of the product that has been developed

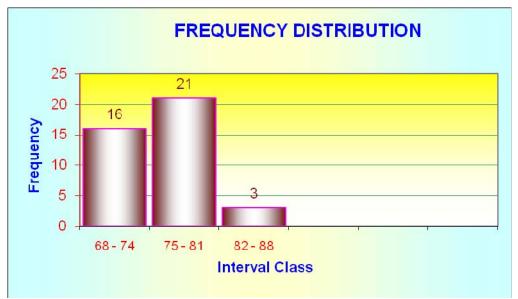
The effectiveness was obtained from the students' final grades, namely recapitulation of weekly assignments, midterms, final assignments and the grade of students attend lectures during the semester. The final task is the replacement for the semester final exams that are done by giving final project to the students to determine the mastery level and depth ability to analyze the basic education curriculum. The final task was sent to lecturer's e-mail in accordance with the schedule. The lecturer e-mail was abnahidayati@pps.unp.ac. The students' assignment that was sent to that address, then downloaded, read and assessed according to the category of assessment by the lecturer. The results of assessment of student assignments can be seen in appendix 6. The appendix 6 lists the grade of class A with section code was 201 420 040 037 that conducted face to face learning without combined with online learning, and class B with the section code was 201 420 040 039 that conducted lecture by combining face-to-face meetings with online learning. Then, this value was analyzed and both will be compared for significant prove of the effectiveness of the implementation of blended learning strategy formulation that has previously been formulated for School Curriculum subjects.

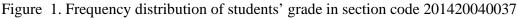
Based on the value that has been obtained, there is the distribution of the students' data values in school curriculum subject class A with code 201420040037 that was conducting face to face lectures without combination with online learning

Interval class	Upper limit Lower limit	Middle Scor (x)	Fre- quency (f)	%	Frequency Comulatif (cf)	(%)	(x-M)	$f(x-M)^2$
68 – 74	67,5 - 74,5	71	16	40,00	40	100	-2	91
75 - 81	74,5 - 81,5	78	21	52,50	24	60	5	446
82 - 88	81,5 - 88,5	85	3	7,50	3	7,5	12	404
Jumlah			40	100				942

Table 1. Distribution of student grades on section 201420040037

There is a frequency distribution class A grade s with code 201420040037 conducting lectures face to face meetings with the usual way





Then, class B with code 201420040039 conducting lectures by combining face-to-face meetings with online learning. Here the distribution of the data value of students in the School Curriculum subject class B

 Table 2. Distribution of student grades on section 201420040039

Interval class	Upper limit Lower limit	Midlle Score (x)	Frequency (f)	%	Frek Kum (cf)	Frek Kum (%)	(x-M)	f(x- M) ²
64 – 69	63,5 - 69,5	66,5	4	10,00	40	100,00	-9	355
70 – 75	69,5 - 75,5	72,5	14	35,00	36	90,00	-3	163
76 – 81	75,5 - 81,5	78,5	18	45,00	22	55,00	3	120
82 – 87	81,5 - 87,5	84,5	4	10,00	4	10,00	9	295
Jumlah			40					933

There is a frequency distribution grades class B with code 201420040039 conducting lectures by combining face-to-face meetings with online learning .

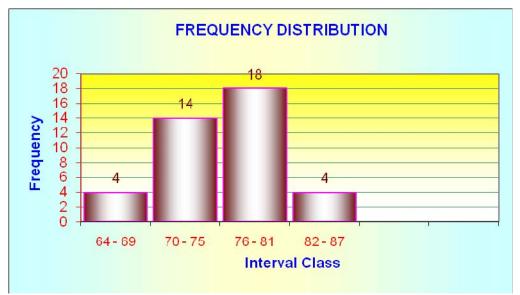


Figure 2. Frequency Distribution of student values on section 201420040039

Then, a class B with a section code 201420040039 was the class that is conducting lectures by combining face-to-face meetings with online learning. The table below is the distribution of the data of student values in the School Curriculum Studies course class B.

Before t test analysis is done on students' value, the researcher has done the distribution test of the data that is test of normality and homogeneity test.

a. Normality test

Based on data from study results that have been obtained then the normality test was done. The research team conducted an analysis of normality test using SPSS 20. The results of

the processing the data showed that both of the data are normal. From the analysis of the data obtained by the value of Shapiro-Wilk class A is 0.0607. The value is greater (>) than 0.05, which means the data is normally distributed. While the results of the analysis of the data obtained by the value of Shapiro-Wilk class B is 0.456. The value is greater (>) than 0.05, which means the data is normally distributed. After having both of data is the normal distribution,hence it can be done t test analysis.

b. Homogeneity test

Homogeneity test is done to see if the data classroom learning outcomes that conducted lecturing by combining face-to-face meetings with online learning and classroom learning outcome data that conducted lectures only did with face to face meetings have variances homogeneous or not. In the homogeneity test used test F. After calculating the second class of the samples, the result showed that F arithmetic <F table, namely 1, 006 <2. That means the two classes come from a homogeneous population have the variant.Uji t

c. T test

After conducting tests of normality and homogeneity of the final grades of students in the School Curriculum Studies subjects, normal and homogeneous data can be done t test to compare two values. T test analysis was performed using SPSS 20.

Based on data analysis at the level of significance values of 0.05 is 0.032. This means that the significance value <0.05, that means there is a significant difference between the results of learning to use a blended learning strategy formulation with face to face meetings on the implementation of the curriculum in the Department of Curriculum and Educational Technology. T test results showed that the blended learning strategy formulation in the implementation of the curriculum in the subject of the school curriculum study is effectively.

Discussion

According Akker (1999) effectiveness refers to the level of experience and outcomes of interventions intended destination. The effectiveness blended learning strategy formula in the implementation of the curriculum in the Department of Curriculum and Educational Technology seen from the quality of learning outcomes, attitude, and motivation of learners. On this course, the quality of student views of weekly assignments, midterms, final exams and participation of students in the lecture. After the prepared formula has a valid and practical, then the implementation process is continued until the end of the semester to obtain students' final grades. Hubbard (1983) proposes nine criteria for assessing the effectiveness of product development. His first criteria are the cost. Costs had to be judged by the results achieved with the use of the media. Other criteria are the availability of facilities such as electricity, compatibility with class size, conciseness, the ability to be changed, the time and effort to prepare, the effect that is appeared, the complexity and the latter is usability. The more the learning objectives achieved more effective strategies used.

For example, the goals of study the school curriculum are after attending this course the students are able to examine the structure of Curriculum 2013, and KTSP and the students are able to see the difference with the 2004 curriculum and the linkages between the National Education objectives, competence, standards and basic competencies. Understanding the new

approach in the implementation of the curriculum and syllabus examine the curriculum in 2013 and KTSP and look into compliance with the syllabus teaching materials that allow the preparation of teaching materials as part of self-employment and implement the teaching profession. When the goal is achieved, the blended learning formulation can be applied effectively. The achievement of these goals of the final grade students can be seen as an accumulation of 15% duty / participation of students in the lecture, 20% of student papers weekly assignments, 25% of midterms and 40% of the final project of the semester.

Furthermore, the effectiveness of the implementation of blended learning strategy formulation in the implementation of curriculum is also supported by the goal of this formulation. Based on the background of the problems of this study, the application of blended learning strategy formulation that is appropriate to implement the curriculum in accordance with the development of science and technology it has not been found yet. Curriculum implementation activities conducted so far have not accommodated the needs of students towards science. Undiscovered design curriculum implementation that involves learning face to face and online.

The results of formulation in implementation of blended learning strategy formulation that is valid, practical and effective can be utilized in implementation of the curriculum1 in higher quality and functional for students. Due to the implementation of blended learning strategy is not to be conducted by 50:50 (eight online meetings and eight face to face meetings), but the formulation of the strategy was formulated by the analysis of the needs of each subject. With this research, more specifically it can be said that the implementation of the curriculum in the subject of study curriculum that applies more interesting, participatory, active and effective.

Conclusion

- 1. Based on the research process, it can be concluded that: 1. Formulation of blended learning strategy in implementing curriculum in the Department of Curriculum and Educational Technology was formulated for School Curriculum Studies courses online learning formula about 62.5% and formula of face to face meetings about 37.5%.
- 2. The formulation of blended learning strategies in implementing the curriculum in the Department of Curriculum and Educational Technology is effective when compared to classes that do not combine face-to-face meetings with online learning.

Acknowledgement

An attempt to assess the effectiveness of the formulation of strategies for the application of blended learning in courses of study school curriculum is a challenging job, because learning in two worlds, the real world and the virtual world. In the implementation process of the application of blended learning strategy formulation, the researcher always involves various circles to discuss, such as students and lecturers of faculty the department of Curriculum and Educational Technology. Thus contributions that they provide without mentioning names one by one, the researcher would like to thank.

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of appreciation hereby is awarded to

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Presenter

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