

BLENDED LEARNING AS A MODEL OF TEACHING AND LEARNING AT UNIVERSITY

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Abstract

The development of information and communication technology has a great effect on the management of education, especially at tertiary level. One of the forms of the impact is the way that students and lecturers communicate and interact each other in teaching and learning context. In the past, teaching and learning activity was conducted mainly in the classroom, where the lecturers delivered their teaching materials manually using conventional teaching aids like a blackboard and an overhead projector. This traditional way of teaching and learning required the students and the lecturers to have a face-to-face meeting in the classroom, and the presence of the students in the meeting became one main prerequisite for the success of their study. The invention of modern educational technology enables the students and the lecturers to manage teaching and learning more flexibly. The e-learning technology has provided the capacity for both asynchronous and synchronous human interaction. However, as social creature, we still need direct meeting in learning transaction because there are some social and psychological aspects which cannot be effectively tackled by the technology. Blended learning, therefore, becomes an ideal model of teaching and learning in this modern era. It combines traditional face-to-face classroom methods with more modern computer-mediated activities.

Keywords: *Teaching and learning, education technology, traditional methods e-learning and blended learning.*

1. Introduction

The rapid and significant development of information and communication technology and its massive use has a great impact on the management of formal education, especially at university. One of the forms of the effect is the way that students and lecturers communicate and interact each other in teaching and learning context. In the past, teaching and learning activity was conducted mainly in the classroom, where the lecturers delivered their teaching materials manually using conventional teaching aids like a blackboard and an overhead projector. This traditional way of teaching and learning required the students and the lecturers to have a face-to-face interaction in the classroom, and the presence of the students in the meeting was regarded as one important prerequisite for the success of their study.

The invention of modern education technology enables the students and the lecturers to manage teaching and learning more flexibly. They do not have to meet face-to-face in the classroom to carry out teaching and learning activities. They can interact using distance learning, that is, a process to create and provide access to learning when the source of information and the students are separated by time or distance or both. In this case, Garrison and Anderson (2003: 37) review the development of distance education from the first to the fourth generation, where the third generation takes advantage of the capacity for both synchronous (real time) and asynchronous (delayed time) human interaction provided by a variety of telecommunication technologies – notably audio, video, and computer mediated conferencing.

However, as social creature, we still need direct interaction and communication in teaching and learning context because there are some social and psychological dimensions which cannot be effectively tackled by the technology. Therefore, blended learning, which combines traditional face-to-face classroom methods with more modern activities, becomes one of the ideal models of teaching and learning in this modern era. In this short paper I would like to describe what is meant by blended learning, why it is considered a good model of

teaching and learning, and how blended learning is implemented in Sebelas Maret University.

2. The Meaning of Blended Learning

There is no consensus on a single agreed-upon definition for blended learning. The terms "blended," "hybrid," and "mixed-mode" are usually used interchangeably in literatures. One of the definitions is proposed by Graham (2004), saying that blended learning is learning strategy combining two learning modes: traditional learning and distance learning using information and communication technology (e-learning). The classical traditional learning is a strategy of learning usually taking place mainly in the classroom where students and lecturers meet and interact face-to-face. This mode of teaching and learning can be realized in a variety of approaches, methods, and techniques. The e-learning, on the other hand, is a strategy of learning using online system through internet and intranet or even off-line. This mode of teaching and learning requires the students and the lecturers to have interactions at the same time but different places (synchronously) or different time and different places (asynchronous). Thus, the application of blended learning provides opportunities for various modes of learning interactions. The process of learning is more flexible and not limited by the scheduled time and place.

Another definition of blended learning is given by Thorne (2003: 16). After reviewing some concepts in relation to e-learning, he comes to the following:

Blended learning is the most logical and natural evolution of our learning agenda. It suggests an elegant solution to the challenges of tailoring learning and development to the needs of individuals. It represents an opportunity to integrate the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning. It can be supported and enhanced by using the wisdom and one-to-one contact of personal coaches.

He adds that blended learning is a mix of some elements such as multimedia technology; CD ROM video streaming; virtual classrooms; voicemail, email and

conference calls; and online text animation and video-streaming. These elements are combined with conventional forms of classroom teaching and learning.

3. Why Blended Learning?

A number of advantages can be gained from using blended learning. In this context Throne (2003: 18) says that the most important significance in blended learning lies in its potential. Blended learning represents a real opportunity to create learning experiences which can provide the right learning at the right time and in the right place for each and every individual, not just at work, but also in schools, universities, and even at home. This model of learning can be really universal, crossing global boundaries and bringing groups of students together through different geographical areas, cultures, and time zones. Therefore, blended learning could become one of the most significant developments of the 21st century. He adds that in the implementation level, there are some other advantages: (1) learning can be more targeted, focused, and delivered bite-size, just-in time; (2) students can communicate and interact with their lecturers; (3) students can interact with their peers; (4) learning materials can be readily and easily accessed; and (5) a different number of methods and techniques of teaching can be utilized by maximizing different kinds of technology (p. 132).

In relation to this, Clyde and Delohery (2005) discuss the advantages of blended learning in terms of some dimensions of teaching and learning. They include communicating with the students, distributing teaching materials to the students, promoting collaborative learning, helping students learn through experience, developing students' study skills, and using assessment and feedback to improve learning. They take e-mail as an example. This piece of technology can allow lecturers to (1) contact students outside of class, using the advantage of engaging them on non-classroom time; (2) prompt students to think about a certain issue prior to class, which can facilitate future discussion; (3) prompt students to reflect on recent information, such as asking them to reply with the most important point they heard during the previous class; (4) follow up a

discussion cut short in class or redirect students' engagement by asking leading questions; and (5) know who read the Email and who deleted it without reading it.

Furthermore, the application of blended learning also provides opportunities to accommodate a variety of trends in learning in the information age (Siemens, 2005). Through internet connection learners can access many sources of knowledge outside of teaching materials that have been provided. Various modes of online communication allow brainstorm, exchange ideas or even the results of the design, and others. There are no longer a computer that exists in intranet and internet, but people around the world. They learn from each other, it is not clear who is the teacher and who is the student (Conole, 2009). People build social networks through Facebook, MySpace, Twitter, Friendster, and others, as well as upload and retrieve various creations in the form of videos via YouTube and Flickr. Social interaction can also be done through direct communication in writing (chat), for example via Yahoo Messenger, or direct conversations with voice and video using Skype. To manage learning, there are several systems such as Moodle, MyUni, Dockeos, and others (McCarthy, 2010).

4. Blended Learning in Sebelas Maret University

Sebelas Maret University (UNS) is one of the public universities in Indonesia currently making a good progress. This is triggered by the hope and great effort to achieve an internationally recognized university. The obsession is reflected in its vision established by the Decree of Senate of the university, Number:417/J27/HK.PP/2006, dated August 16th, 2006. The vision is "becoming a center for excellence in the development of science, technology, and art at the international level based on the noble values of the national culture". The missions are (1) to provide effective education, teaching and learning, fostering all teachers to develop their professionalism and all students to improve their autonomy in acquiring their knowledge, skills, and attitude; (2) to conduct researches leading to new invention in science, technology, and art; and (3) to carry out community service that can encourage the society to gain their power and welfare.

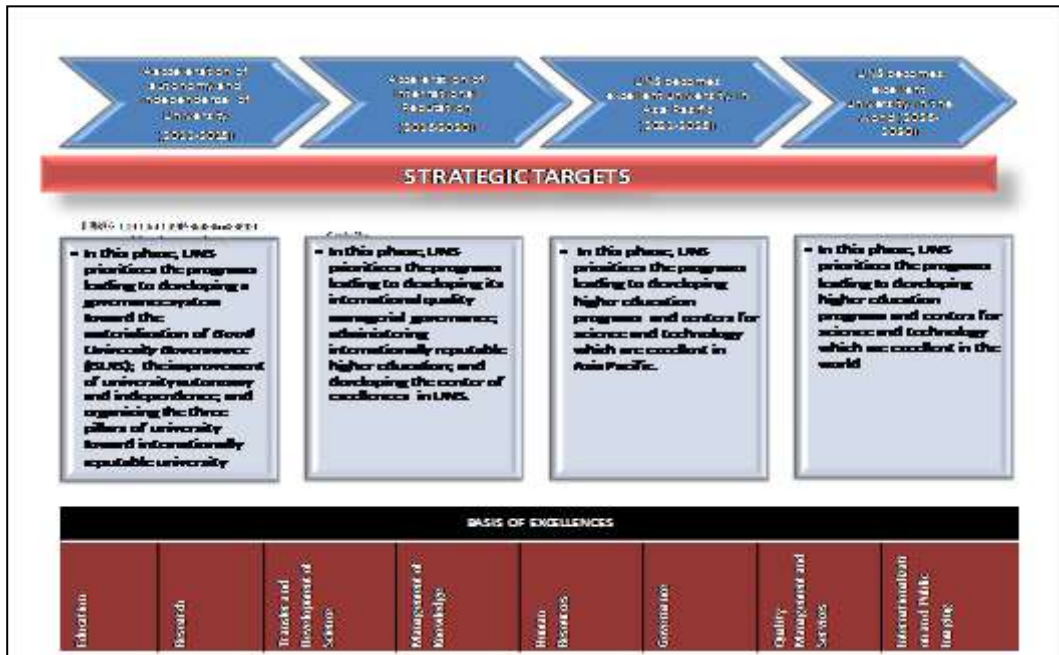


Figure 1: Strategic Targets of UNS

To realize its vision and mission, UNS has developed a long-term strategic planning for 2011-2030. The first phase of the planning (2011-2015) is the realization of good university governance and good human capital through organizational restructuring and management system, which includes eight flagship programs, to reach 20 goals through 85 events, complete with key performance indicators (KPI: key performance indicator). One of the flagship programs is the achievement of excellence in the management of knowledge with sub-program development of knowledge management based on information and communication technology. Related activities featured on the program is to strengthen the development of e-learning with a target of 16.8% of subjects implementing e-learning in 2012.

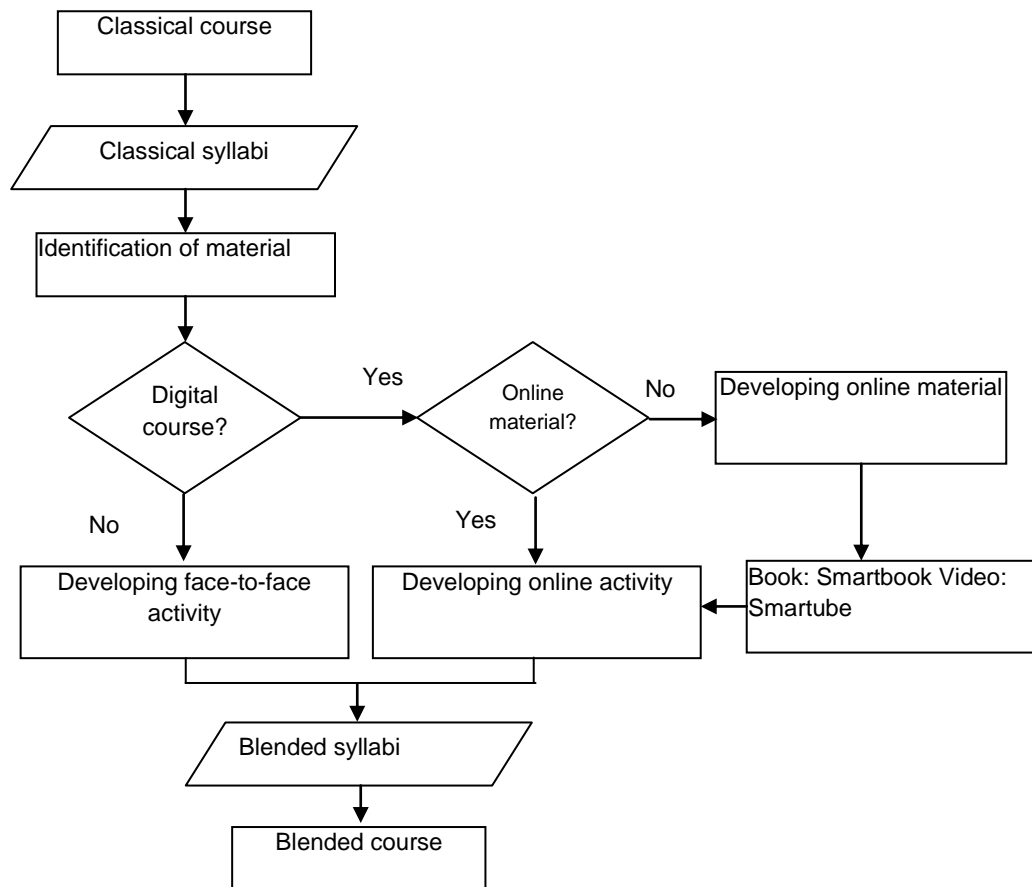


Figure 2: Flowchart of Development of Blended Learning in UNS

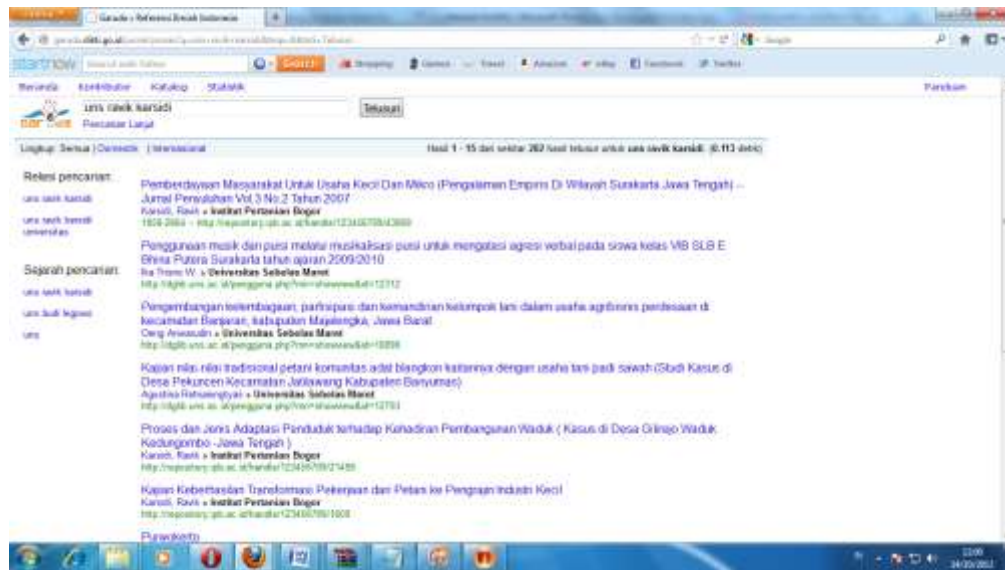
Classical syllabus is the basis for the development of blended learning programs. The development of the activities is carried out in face-to-face training called PEKERTI-AA. The results of the identification of the needs of digital teaching materials developed into two types: in the form of an e-book (published in smartbook.uns.ac.id) and in the form of video lessons (published in smartube.uns.ac.id). Up to October 2012, there have been 692 subjects enrolled in elarning.uns.ac.id. The use of blended learning by utilizing elarning.uns.ac.id reaches 13,372 students with 469 teachers involved in it. The achievement of the implementation of blended learning in UNS is partly due to the cooperation of UNS with some other institutions such SEAMOLEC, DBE-USAID, and Directorate General of Higher Education of the Republic of Indonesia.

Moodle CMS has been selected as the basis for the development of blended learning program in UNS because it is one of the open source systems that are reliable in the application of learning. Besides, the features of moodle CMS allows social interaction to run well although the courses are held online. The example of UNS interface e-learning page used in blended learning program is presented in Picture 2.



Picture 3: E-learning.uns.ac.id

As a part of the development of blended learning program, UNS also develops SIAKAD (Academic information system), SIRINE (research information system), UNSLA (UNS library) and other ancillary systems. As a part of higher education policy, UNSLA information system integrates directly with the EAGLES (garuda.dikti.go.id), which is a scientific reference tracking portal and the general work of the Indonesian, which allows access to e-journal and e-book domestic, student thesis, research reports, and other public works. This condition can indirectly create a better academic atmosphere UNS.



Picture 4: garuda.dikti.go.id

5. Closing

The fast development and invention of modern educational technology is an opportunity for university to materialize its vision and mission so as to play its role to build the nation. Through the application of blended learning, the prevailing gap between the conventional and modern teaching and learning methods can be accommodated and diminished gradually as the lecturers and the students are enabled to manage their teaching and learning more flexibly on their own pace. In addition, the e-learning technology applied provides them with the capacity for both asynchronous and synchronous human interaction on one hand and the face-to-face classroom methods are realized with the more modern computer-mediated activities on the other hand. The blended learning, therefore, is an ideal model of teaching and learning in this modern era as it represents a real opportunity to create learning experiences which can provide the right learning at the right time and in the right place for each and every individual, not just at work, but also in schools, universities, and even at home.

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