

Blended Learning Model at Learning Evaluation Course (R & D research)

Rusydi Ananda

Lecturer of FITK in State Islamic University of North Sumatera (UINSU), Medan, Indonesia
rusdiananda.1972@gmail.com

Abstract : *The purpose of this research is to develop a blended model of learning introduction to sociology. The learning model development is done using the method of research of R&D. The results of the validation team of experts concluded that the learning model designed meet the proper procedures and proper use. Based on the results of these feasibility tests then continued with the trial of individuals, small groups and trial tests of the field. Then conducted a test of the effectiveness of the model by comparing the results of a pretest and posttest were analyzed using t-test and it can be concluded that the product study materials giving real effect against student learning outcomes.*

Keywords : *model of learning; blended learning; sociology*

I. Introduction

The use of information and communication technology in Learning Evaluation learning changes the patterns and interactions of learning. Various learning models based on information technology and communication such as e-learning, web-based learning, distance learning, and also blended learning. Current trends in e-learning learning receive much attention.

Referring to the explanation, it can be understood that there has been a tendency to increase the use of information technology and communication for learning, especially its use in the Learning Evaluation course. Learning is often referred to as blended learning, which is a learning model that combines face-to-face learning with online learning.

In line with the vision of the Faculty of Science of Tarbiyah and Teacher Training of the State University of North Sumatra Medan North Sumatra Medan became a superior faculty in the development of integrated Islamic education at the national level to realize the learning community in 2025. Looking at this vision an effort to improve output quality and relevance is through utilization of information and communication technology. This has been initiated by developing various programs specifically related to the advice on learning based on information and communication technologies including by creating internet networks in the faculty environment that are easily accessible by lecturers and students.

The use of information and communication technology on the practical dimension, especially among lecturers and students, influences changes in the mindset and pattern of lecturers 'and students' actions in the implementation of course learning which leads to the expectations and demands of the lecture process. In general, students are expected to become professionals to can work at the time they graduate from college, they also have the ability to choose about how and what they want to learn, and when they learn it. The development of information and communication technology has also opened up opportunities and encouraged the occurrence of revolution in the way people learn and how information is conveyed, including in the world education.

Referring to the preliminary data and the above thoughts, it is necessary to develop information and communication technology-based learning intended for Learning Evaluation lectures by applying the blended learning learning model. This is based on the following assumptions: (1) learning development can be used as a learning resource that is expected to

facilitate students to achieve learning goal, (2) development of learning becomes important when viewed from the perspective of learning ease and increased student achievement because the development of learning is designed to meet characteristic needs of students.

Based on the explanation above, the purpose of this study was to obtain a product for the development of a learning model for blended learning in the evaluation.

II. Theoretical Review

Garrison and Vaughan (2008) explain blended learning is a combination of face-to-face learning and online learning. Meanwhile Smaldino et al (2008) explain blended learning is: "combination of e-learning with direct face-to-face learning". Stacey and Gerbic (2009) cite the opinions of Allen, Seaman and Garrett who define blended learning and are: "learning done 30–79% with online delivery".

Thorne (2003) explains blended learning is a combination of overall multimedia technology; CD ROM video streaming, virtual classrooms, voicemail, email and conference calls, online text animation and video streaming that are used in traditional learning (face-to-face) and learning. All of this is combined with traditional class (face-to-face) and independent learning.

Bates (2005) describes blended learning as: "a combined model that combines face-to-face and online teaching". Next Jaesoon (2009) defines blended learning is: "courses that combine face-to-face classroom instruction with online learning and reduced classroom contact hours (reduced seat time).

Bärenfänger (2005) defines blended learning as: "integration of independent learning and / or e-learning with classical classroom learning especially encouraging desired development such as more individual and flexible learning". Furthermore, Bärenfänger explained that blended learning is not a simple combination of classroom learning with e-learning, but consists of standard learning arrangements (class meetings) as well as offline activities outside the classroom (tutorials, classes from other institutions on campus, peer-reviewed, workshops) and study in computer mediation (online lessons).

More and Guy (2016: 155) explained that blended learning is: the interaction of face-to-face learning with online learning. It is equally explained by Coolis and Moonen as quoted by Ahmad and Ismail (2013) that: blended learning is a learning concept that combines traditional learning activities in the form of rules with the concept of online learning.

Based on the explanation above, it can be interpreted that the blended learning model is a combination of face-to-face learning and online learning models that provide many advantages in providing subject matter to students, access to extensive teaching materials and activities that support higher learning can be in the form of assignments and project-based learning. The blended learning model is not just a mixture of online learning and face-to-face learning but focuses more on optimizing the achievement of learning goals through the application of the right and appropriate learning technologies so that students learn correctly with the right time and achievement of learning objectives in question is oral communication through learning face-to-face and written communication through online learning can be integrated optimally the strength of each mixed learning becomes a unique and congruent learning experience with learning objectives.

The design of blended learning in the Learning Evaluation course is as follows:

a. First Study

The initial study was to analyze the learning needs. Analysis of learning needs is a process of identifying, documenting, justifying and selecting gaps through the priorities of each learning need. Analysis of learning needs is prepared based on data about the learning process that has been going on, analysis of student characteristics, physical learning environment, learning human resources, and organizational or managerial aspects either directly or indirectly influence the smoothness of the learning process. Analysis of learning needs is useful to determine: (a) learning experiences that must be possessed or the ability of the prerequisites mastered before a learning process is carried out; (b) formulation of learning objectives and task analysis that must be carried out; (c) how the presentation of material begins with methods, media, learning strategies that must be applied or what learning conditions should be developed so that learning takes place smoothly; and (d) support and obstacles to the learning process.

b. The First Stage: Pre-Development.

The pre-development stage is preliminary activities prior to the development of learning design. Activities in this stage are: (a) writing general instructional objectives, (b) conducting instructional analysis, (c) identifying initial behaviors and characteristics of students, (d) writing specific instructional goals, (e) developing learning outcomes assessment tools, and (f) developing instructional strategies.

c. Second Stage: Product Development.

The development of learning material products is carried out the following steps: (1) choosing learning materials. Development of learning materials that are used for face-to-face learning and online begins with the activity of selecting learning materials derived from existing learning resources that are tailored to the needs development of learning materials that are designed, and (b) Production of learning materials. The selected learning resources are used as material for the development of learning materials, then production is carried out by paying attention to the principle of accuracy and conformity with the theme of the discussion contained in the development of learning materials Learning Evaluation subjects.

d. The Third Step: Product Testing.

The learning material products that have been completed above are product draft models 1. These products are discussed with colleagues Discussion with colleagues related to the feasibility of learning material products from the aspects of content, learning design and display design, so that the draft model 2 products are obtained. Learning as a draft model 2 product is carried out by expert judgment and then followed by individual testing, small group testing and field testing. The results of the trial were obtained by the final product model of learning material development.

e. The Final Product

The final product development carried out above gave birth to a physical model, namely the physical form of the learning material in the form of printed and non-printed learning materials.

III. Research Methodology

The research method used in this research is research and development (R & D) from Gall, Gall and Borg (2007) with the following steps: identifying learning objectives, learning analysis, analyzing the characteristics of students and the learning context, writing learning goals specifically developing assessment instruments, developing learning strategies, developing and selecting instructional materials designing and developing formative evaluations, design revisions, designing and developing summative evaluations.

The data analysis procedure is carried out through three stages, namely: data reduction, data presentation and conclusion drawing. Data reduction is done by making selections, focusing on simplifying, abstracting and transforming raw / rough data that appears from written records in the field. Data reduction is also related to sharpening analysis, revealing important things, classifying, directing, removing unnecessary ones and organizing data to be more systematic so that a meaningful conclusion can be made. Data presentation is done after the data reduction process is done, in this case the presentation of data is a process of providing a set of information that has been compiled that allows for conclusion. The process of presenting this data is to express the whole of a group of data obtained so that it is easy to read, in this case the presentation of data in the form of tables and graphs. Withdrawal of conclusions is done after the process of presenting data, in this case drawing conclusions which are the core of a series of information or presentation stating the results of the research that has been done.

IV. Discussion

Blended Learning Learning Model Learning Evaluation subject is a learning material that is specifically used in face-to-face and online lectures. The purpose of the development of learning models is to be able to provide guidance for bagidocene lecturers of Evaluation Learning and students in planning, managing, developing and evaluating learning activities.

Blended learning learning model Evaluation Learning subject is equipped with printed teaching materials for face-to-face and online teaching materials using the google forms application. The device is not stand alone but is an integral whole in the series of lectures. Google forms application is an application provided by Google to help users process and store documents based on internet networks.

The product developed is carried out by expert judgment and then followed by individual testing, small group testing and field testing. The aim of the feasibility test by the expert team is to see the feasibility. Recapitulation of the results of the feasibility test of Evaluation learning materials products from instructional design experts, media experts and material experts can be seen in Table 1 below:

Tabel 1. Recapitulation of Feasibility Test Results by Experts

No	Group	Average Score	Category
1	Instructional Design Expert	3,24	Proper to use
2	Media Expert	3,28	Proper to use
3	Material Expert	3,39	Proper to use
Cumulative Average Score		3,30	Proper to use

Referring to the table above, it can be seen that the cumulative score of 3.30 results of expert feasibility tests on Learning Evaluation learning materials products are in the category

of feasible use. Then individual, small group and field trials were carried out as shown in the following table:

Tabel 2. Recapitulation of Feasibility Test Results by Students

No	Group	Average Score	Category
1	Individual	3,69	Very Worthy
2	Small group	3,60	Very Worthy
3	Field group	3,51	Very Worthy
Cumulative Average Score		3,60	Very Worthy

Referring to the table above, it can be seen that the cumulative score of 3.60 test results with students on Evaluation Learning learning material products is in the very feasible category.

Next to see the effectiveness of learning material evaluation products Learning is done on learning outcomes obtained through pre-test and post-test. Pre-test (initial ability test) in this case is the subject score of the teaching material that will be taught while the post-test is the subject score of the teaching material that has been taught. The results of the statistical test obtained the price of tcount 17.54 and the price of ttable at $\alpha = 0.05$, namely 2.042. Because the price of tcount > price ttable then H_0 is rejected, it can be concluded that the product of learning material Evaluation Learning has a real effect on student learning outcomes.

Along with the development and progress in information and communication technology, it is appropriate for the teacher (lecturer) to have a number of technological abilities inherent in him to support the effectiveness of learning. In other words, a teacher does not only rely on conventional learning systems, which are dominant with the use of lectures, but also combine with the use of technology in lecturing.

Responding to the development and progress of information and communication technology utilized in lectures, a lecturer is expected to act on the basis of deep thinking, collaborating with colleagues in designing information and communication technology-based learning, especially for lecturers who are not yet familiar with the technology.

Through this, the lectures conducted can be more varied, for example through the blended learning model. Lectures with a blended learning model that combines face-to-face and online conducted can run effectively, efficiently and attractively and must be initiated through a systematic and systemic process of learning design.

For this reason, we need a quality lecture design that can be guided by lecturers and students in conducting lectures. In other words the quality and success of lectures in principle depends on the quality of the design of the lecture itself which is carried out systematically and tested. This is in line with Reiser and Dempsey's (2007) explanation that in learning design is carried out through a systematic process in developing education and training programs that are carried out consistently and tested. The process is passed in a complicated but creative, active and repetitive manner. "

The strategic role of the lecturer as lecturer is important in designing a lecture. The lecturer must have a clear vision and a sharp analysis of the design of the lecture design that can help and facilitate students to study. Referring to the desire to improve the quality and success of lectures, in this case the lecturer is a designer and developer in designing lectures.

For this reason, lecturers are expected to have the ability to make changes in learning towards higher quality. In this case the actual lecture must be able to make students able to construct or build their knowledge not only to obtain knowledge transfer from their lecturers.

To achieve this, the lectures conducted are an event that is intentional or designed by lecturers to students to achieve certain objectives in the form of expected competencies after attending the lecture.

The lecturers as individuals are required to have personal abilities in conducting learning design, however the lecturers do not work alone, because in the design of learning can involve other units such as students, colleagues / colleagues, leaders and other experts that can be asked by expert judgment .

The blended learning model is needed as a solution to overcome learning problems because it contains a series of activities both lecturers and students do face to face and online so that learning is directed towards achieving the expected learning goals. This is in line with Sorden's explanation as quoted by Klimova and Kacatl (2013) asserting that blended learning is not just a combination of face-to-face and online learning but is a combination of training methodologies that use the best delivery method for successful achievement of lesson objectives that require not only teachers flexible and experienced but also independent / autonomous students.

Learning Evaluation Blended Learning Model Learning in facilitating learning perspective, and improving performance in terms of students as follows: (1) expanding student access to learning resources that are not only done face-to-face limited by space and time, but access to learning resources can be done anytime and anywhere as long as there is an internet network, (2) learning activities experienced by students become more varied because not only through face-to-face learning but also through online learning, (3) blended learning learning models can encourage student learning personalization that refers to mastery of the competencies required in the Learning Evaluation lecture because of the availability of online learning materials, (4) the blended learning learning model facilitates students to independently manage their learning. Students can be more effective independently in mastering learning material and are better able to learn at the pace of their own learning because of the availability of easily accessible learning resources.

Furthermore, the blended learning model in the Learning Evaluation course in facilitating learning perspective, and improving performance in terms of lecturers are as follows: (1) this learning design product can facilitate lecturers to complete the administrative tasks of their lectures, because this product is equipped with the ability to process and store documents based internet network, (2) provide easy access for lecturers to check the progress of assignments from students because they are well organized in google forms applications, and (3) blended learning learning models can bridge communication between lecturers and students that are not only limited by viewing schedules face with a certain amount of time.

This is in line with Khaeruddin's explanation (2011) that lecturers and students can carry out lectures in a time and place that does not have to be asynchronous. But on another occasion, lecturers and students can communicate and interact at the same time and in a synchronous place.

The product strength of the Learning Evaluation blended learning learning model is described as follows: (1) the integration of face-to-face learning and online learning models can make it easier for students to access new knowledge, (2) the blended learning model has very high flexibility of time and place, in this case the lecturer and students can carry out lectures in a time and place that do not have to be asynchronous but can carry out lectures at the same time with a synchronous place, (3) the product of the blended learning learning model Learning Evaluation courses are designed by following the rules learning design and development research methodology, so that the degree of scholarship can be accounted for, and

(4) learning material products are equipped with learning tools such as; syllabus and lecture contract. This certainly makes it easier for lecturers and students to carry out Learning Evaluation lectures.

V. Conclusion

Conclusion that can be conveyed related to the use of learning material products as follows: (1) the product of the blended learning learning model can be used individually or in groups not the only learning device that can be used as a learning resource. Therefore it is recommended to users in addition to using learning material products also to use a variety of other learning resources to complement each other, (2) to develop the same product in other subjects especially in designing blended learning so it is recommended for other developers to make adjustments in the design learning by analyzing learning needs, characteristics of students and contexts appropriately, and (3) rector and deanates so that they can provide accessibility stimulus for instructors to improve their ability to design learning and no less urgent is the financial stimulus to the instructors to be able to design lectures with studies the right learning design science.

References

- Ahmad, Zaiha dan Ismail, Isma Zuriyya. *Utilization of Blended Learning in Accomplishing Learning Satisfaction as Perceived by University Student International Journal of e-Education, e-Business, e-Management and e-Learning, Vol. 3, No. 2, April 2013.* <http://www.ijeeeee.org/Papers/200-ET004.pdf>
- Bärenfänger, Olaf. *Learning Management: A New Approach to Structuring Blended Learning Arrangement.* Electronic Journal of Foreign Language Teaching, Centre for Language Studies National University of Singapore Vol. 2 No. 2. 2005.
- Bates, A.W. *Technology, E-Learning and Distance Education, Second Edition.* New York: Routledge, 2005
- Gall, Meredith D., Gall, Joyce P. dan Borg, Walter R. *Educational Research, Eight Edition.* Boston: Pearson Education, Inc. 2007.
- Garrison, D. Randy dan Vaughan, Norman D. *Blended Learning in Higher Education Framework, Principles, and Guidelines.* San Francisco: Jossey Bass, 2008.
- Jaesoon, AN. *How Do You Define Hybrid/Blended Course* <http://teaching.uncc.edu/blog/2009-11-06/how-do-you-define-hybridblended-course>
- Khaeruddin, *Model Pembelajaran Blende Learning Berbasis Pendekatan Konstruktivistik Pada Matakuliah Evaluasi Hasil Belajar.* Jurnal Teknologi Pendidikan Vo. 13 No. 2 Agustus 2011. Jakarta: Program Studi Teknologi Pendidikan Program Pascasarjana Universitas Negeri Jakarta.
- Klimova, Blanka Frydrychova and Kacetl, Jaroslav. *Blended Learning and Its Current Role in the Teaching of Foreign Languages.* Procedia Social and Behavioral Sciences Journal Nol. 93, 2013.
- More, Nicole A. Buzetto and Guy, Retta Sweat. *Incorporating the Blended Learning Model into Minority Education at a Historically Black University,* Journal of Information Technology Education, Vol 5. 2006.
<http://jite.informingscience.org/documents/Vol5/v5p153-164 Buzzetto130.pdf>.

- Reiser, Robert A. and Dempsey, John V. *Trends and Issues In Instructional Design and Technology*. New Jersey: Pearson Merrill Prentice Hall, 2007.
- Smaldino, Sharon E., Lowther, Deborah L. dan Russell, James D. *Instructional Technology and Media for Learning*. Ninth Edition. New Jersey: Pearson Prentice Hall, 2008.
- Stacey, Elizabeth dan Gerbic, Philippa. *Effective Blended Learning Practices: Evidence-Based Perspectives in ICT-Facilitated Education*. New York: Information Science Reference, 2009.
- Thorne, Kay. *Blended Learning: How to Integrate Online and Traditional Learning*, London, UK. Kogan Page, 2003.