E-LEARNING OPTIMIZATION THROUGH CULTURAL TRANSFORMATION IN HIGHER EDUCATION INSTITUTION AT UNIVERSITAS GADJAH MADA

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Abstract

The use of e-Learning in the learning process in higher education institution in Indonesia is currently experiencing a significant increase. E-learning as online learning patterns of behavior considered as determining how learners. The use of e-learning in the learning process is able to provide a better learning opportunities, enrich the teaching materials to be more vivid and realistic. This paper aims to identify the significance and the concept of cultural transformation in the optimization of the implementation of e-learning in the learning process in higher education institution. This study used descriptive qualitative approach. The results showed that the learning process that combines face to face and online learning requires a process of cultural transformation in learning through social determinism approach in order to obtain optimal benefits. The cultural transformation in values and behavior, including an appreciation of the value of efficiency, work ethic, ethos of learning and the development of self-learning culture. Therefore, these prerequisites must be fulfilled through policy and implementation program to improve learning and self-learning ethos. Without fulfilling these socio-cultural prerequisites, an e-learning implementation of the policy will only make learners become so unproductive consumer technology. Through social determinism approach, the learned behavior will occur because of the culture of collective learning.

K e y w o r d s : Cultural · Tranformation · E-learning · Learning Process · Values · Behaviour

Introduction

Background

Learning patterns use hybrid patterns, is learning that incorporates face-to-face and online-based meetings, technology is present in the learning process. This learning pattern aims to expand learning opportunities, improve the quality of learning process, foster equal opportunities among students. Hybrid learning patterns that utilize the presence of e-learning in the education system in Indonesia have a passion to provide some breakthroughs in the space and time in the learning process. At least, there are two main considerations underlying the need to apply this web-based hybrid learning pattern. First, the geographical conditions of Indonesia are stretched vastly whose surface structures consist mostly of mountains, mountains, islands and oceans. This geographical condition make hard effort of equalization of education to be implemented. The level of education becomes higher make the number of educational infrastructure decreases. In 2011, there are about 3,000 universities in Indonesia, mostly located in big cities (www.dikti.go.id), so the distribution is very uneven. E-learning becomes solution to overcome the limitations of infrastructure and human resources. Second, the limited time to learn. A student has an obligation to complete a study within a certain time period and study load. Therefore, it is necessary conditions to study independently, enriching the insights and learning experience outside the classroom. A student must have his learning autonomous character. He must be able to determine his learning way so that he is able to achieve the competencies that have been set of courses in higher educational institution.

E-learning becomes solution that can overcome the constraints caused by geographical conditions and the limited time of study faced by students in Indonesia. E-learning allows geographic space limits, as in the concept of distance learning, but in this case, its application has a requirement for the availability of telecommunication and electrical network access infrastructure. E-learning overcomes the time limit, which allows students to study outside of time limit, determined in the face-to-face system. Many universities in Indonesia, have used a hybrid education system that combines face-to-face and online meetings.

Meanwhile, regarding with e-learning, it has also changed the point of view, that the current learning environment is not centralized anymore, but it is distributed and exposed through learning features, facilitated by internet and network-based technologies. This learning environment facilitates the learning and development of knowledge through meaningful interactions and actions. Basically, as conceptual, learning is a process that places social interaction as an integral part of that process to achieve learning goals. In other words, the social or cultural framework surrounds the learning context and the

learners become determiner, who involved and learning features construct the learning interaction. This social process may not be ignored in online learning. The social framework forms a practical community where knowledge is shared and distributed among its members. There are six attributes that covers online learning (Dabbagh, 2005: 15). They are: (1) Globalization and learning are as an inherent social process through communication and information technology, (2) The concept of group learning is essential for attainment and sustainability of learning , (3) The concept of distance learning is not important anymore and limiting the physical separation between learners and teachers, (4) Learning events are distributed across time and place, either synchronously or asynchronously and through different media (5) Learners engage in various interactions, and (6) Internet or network technologies (web-based technologies) are used to support the learning process and facilitate the learning and development of knowledge through meaningful actions and interactions.

It shows that the character differences, owned learner, when changes to e-learning. There is no more teachers will observe their student's behaviour . If we see from conventional view, but the learning environment has changed to e-learning, then the learning conditions will be formed is lack of self-learning independence. A number of studies showed that hybrid learning that combines face-to-face and online learning requires a transformation in learning (Graham & Dziuban in Spector (et.al.), 2008: 270). It shows the need for design and rethink the conception of learning and learning process suitable with an active learning environment.

Examples of research conducted to see the learning behaviour between students and courses that have been familiar technology, with courses that have not yet familiar technology shows different behavior patterns as in the following data:

Table 1. Quotation of Student Learning Behavior

Learning Behavior	Do		Not do	
	Prodi A	Prodi B	Prodi A	Prodi B
Study at home	100%	60%	0%	40%
Study at library	76,2%	100%	23,8%	0%
Copying friend's note	100%	100%	0%	0%
Reading lecture notes	100%	100%	0%	0%

(Source: Prawiradilaga, 2008)

Study Program A: Courses that have familiar with technology
Study Program B: Courses that have not familiar with technology

The table above shows that there is an influence between the backgrounds of student experiences based on technology with the learning behavior. Learning independence is seen that students on Study Program A, who are accustomed to studying themselves at home and library, and students on Study Program B, who never studied at home. However, there is a similar character in their learning behavior, is photocopying a colleague's notes, but if using the perspective of social determinism, the learning behavior occurs because of a collective learning culture. This collective learning culture does not mean that they are not ready for independence in learning, but are inherent as a collective heritage.

Cultural change (cultural transformation) learning is also being concepted of online learning in Universitas Gadjah Mada (UGM). As one of the best universities in Indonesia that have applied e-learning concept, UGM becomes the only university in ASEAN receiving "HP Technology for Teaching Grant 2007" thanks to the development of E-learning System for Academic Community (ELISA-UGM). UGM was selected after setting aside 300 universities in Asia Pacific. ELisa UGM also received the Indonesia Information and Communication Technology Award (INAICTA) award in 2011 for the best LMS category. UGM has provided ease of learning for many students as well as other college. It is proven by the existence of Elisa. All people from UGM, well inside and outside can see what is in UGM whether about its faculty in UGM, course material, etc. We can also create or join communities according to our field in there. We can know more about the material that we learn because we can share it with others.

ELisa (eLearning System for Academic Community) is a learning management system (LMS), developed by UGM, to facilitate the learning process both in the context of lectures and online learning for the wider community. ELisa is developed from zero and evolves suitable with the user needs. In this case, UGM lecturers as eLisa users play an important role in the development of eLisa through inputs and valuable ideas. This LMS is useful to help academic community organize learning through the internet. Lecturers can upload learning materials, discuss, and give assignments to students. Students can download learning materials, discuss and do tasks from lecturers. For that purpose, eLisa is developed in 3 principles: (1) simplicity of use, (2) based on sound instructional design, (3) creation of an active learning environment (engaging learning environment). ELisa is expected to be able to facilitate lecturers, students, and society generally, share knowledge, learn together, and create new knowledge as a contribution of eLisa's users to world civilization. This is in line with the spirit of UGM which is locally rooted, globallyrespected.

Based on the background related to the development of e-Lisa conducted by UGM, the authors conducted this study and focused to examine cultural changes (cultural transformation) that have been done by UGM in

order to optimize online learning eLisa as an effort to strengthen the learning environment better.

Methodology

This research method using qualitative descriptive method, by describing fact or condition that exist in eLisa UGM

Result and discussion

E-learning: Definition

In accordance with its definition, E-learning means as an effort to make a transformation of the existing learning process in school into digital form by using internet technology (Purbo & Hartanto, 2002). Other definitions describe, E-Learning is as an educational system that uses electronic applications to support teaching and learning with internet media, computer networks, and stand-alone computers. (Hartley, 2001). E-Learning means as a means of education that includes self-motivation, communication, efficiency, and technology (Berman, 2006).

Cultural Transformation: Definition and Concept

Each particular community group will have its own way of living with other groups. Ways of living the life of a society can be defined as the culture of that society. A classic definition of culture is as follows: "culture is a set of behavioral patterns socially born symbolically through discussion and other ways to members of a particular society (Wallendorf & Reilly in Mowen: 1005)". The term new technology will become a technology when it is accepted in the prevailing system of society. The cultural aspects relate with awareness, values, beliefs, and creativity used for Cultural change need to change beliefs over the more progressive new cultures. Adaptation to the new culture needs to be believed that it will impact and provide better change in life.

In using e-learning, not all adoptions we do on learning systems in developed countries can be applied. Learning culture has an influence on the acceptance of e-learning as a learning system, done by students and lecturers. In an individualistic society, each individual has its own uniqueness which requires a special interface on learning materials learned, but Indonesia has the character of collective society, so that the character of learning behavior is collectivistic.

Collective character, meant that learning has a cultural nature, learning behavior has almost the same characteristics between one another. In Indonesia, in other contexts, the whole life of the community is heavily controlled by

an instructive nature, such as in a work culture that still has to wait for the superior's orders to do the task, be less creative, and work because of feeling watched and afraid of being given sanctions. In that context, related with traditional learning behavior, face-to-face system in the classroom that puts the lecturer as the main conveyor of the material and the single learning assessor (Dabbagh, 2005: 3). Teacher-centered learning patterns are an inherent cultural heritage. Learning materials are divided linearly from the teacher's point of view, and each learner receives teaching materials for the same part in the same learning context. Learners are recipients of passive teaching materials and structured learning contexts based on teacher perspectives and sources of learning are available on a regular basis. Limited interaction between learners and learners-learning materials, or sometimes interaction of learners.

Cultural transformation explains the process of values transition, attitudes, and old cultural praxis into a new culture. When science and technology using cultural constructs are based on western cultural values, the old cultural values of the adopting community must make adjustments. One of the imperative values demanded by science and technology is the high appreciation of the logic of causality, accuracy, precision, detail and measurability. Beside that, an appreciation of the principle of honesty, discipline, and hard work that is the ethos of western and other developed countries in Asia. Therefore, educational institutions that still use conventional learning principles, if it wants to be modern based on science and technology, it is necessary to do cultural transformation.

Cultural transformation is theoretically defined as an ongoing process of dialogue between local culture and the "donor" culture to certain step forming a synthesis process with various forms that will give rise to a solid cultural end format. In the process of dialogue, synthesis, and formation of the final format is preceded by the process of enculturation and acculturation. Transformation is needed to go towards modernize, which is a series of changes in basic values that include the value of theory, social value, economic value, political value (power), aesthetic value, and religious values (Jujun S Suriasumantri, 2012: 100).

According to Sartono (1999) in the context of nation-building the main problem faced is how the nation's ethos is developed and institutionalized on the one hand and how intellectual asceticism is cultured in the framework of nation-building with all its problems. Sartono argues that however important of technology and science in industrialization, cultural factors-including ethos and asceticism-cannot be ignored. This is because the creation of science and technology requires a style / attitude and a view of life as a conducive condition to the process. Therefore, in the academic field no matter how important the science of exact and technology, but the social sciences and humanities are still needed, especially in the future economic development of the increasing service industry to the information industry into a knowledge industry. Thus

cultural transformation is an essential prerequisite for a society that leads to industrial society and the information society. Culturally, universities have an independent learning culture that understands how they should learn. This is called cultural transformation. Therefore, transformation presupposes a process of change and change from something that is considered old to something new, or to be adjusted to a new presence (Wahyono, 2011).

Cultural Transformation in eLisa

It is highly realized by eLisa managers who continue to do the transformation. ELisa which was started from ICT unit UGM which was formed in 2004, aims to facilitate e-learning learning in UGM Environment, under the coordination of Vice Rector for Academic Affairs. The concept of elisa is more emphasis on learning innovation (learning) it. The main feature that became the main basis of elisa is the feature of discussion by using the basic concept of collaborative learning between prior learning owned by the students and the knowledge of the lecturers. Lecturers and students can open or discuss a topic and presented openly also features quizzes and tasks, there are values that can be used as a reference component of the value of final exam.

E-Lisa was built to accommodate the needs of lecturers and students but closer to the lecturers, so much feedback coming from lecturers. The transformation done by eLisa managers through observation and following special trends, such as high student interest in its use, is actually able to move and motivate lecturers to use it as well. ELisa itself has become the needs of students, so the awareness of students in using eLisa becomes higher. Based on the data obtained, that 70% of UGM students are using eLisa. This shows that student interest in optimizing the use of e learning is high enough. Awareness that is based on the value of efficiency, the ethos of learning and the development of self-learning culture. ELisa always develops the latest features that even adopt other social media features that become the current trends, such as from facebook, twitter, youtube, but still in the academic realm. Each feature is made an academic script as the basis for its creation. The feature should also get feedback to be a priority scale in future development. The development of these features is intended to make eLisa design more familiar with students. For that purpose, eLisa is developed in 3 principles: (1) simplicity of use, (2) based on sound instructional design, (3) creation of an active learning environment (engaging learning environment).

The transformation is also not only through the activeness of students, but also using lecturer's activeness in using social media. For example, lecturers who actively use facebook in learning, switch to using eLisa because there are features that are not on facebook but provided in eLisa is a feature used to assess the liveliness of student discussions, there are also buttons agree in the same elisa like button "like" on facebook . Student activeness in using

these features can be used as a means of adding value as if the student pressed the like button, but if coupled with good argument from a topic, then the point becomes bigger. Another important point in supporting the transformation process is the full support of the leadership. Such support is evident from the provision of grants such as grants to create interactive material content for UGM lecturers and the making of other learning development applications.

Conclusion

In this study explained that the acceptance of e-learning as a learning system cannot take place in a linear or a single dimension, but some dimensions and approaches that use social cultural perspective is more appropriate. Technical aspects still need to be considered, as a prerequisite of skills that must be possessed by people who will use e-learning. The organizational aspect enables a technology to be stable with systemic policy support. While the cultural aspect is an aspect that always accompanies every technological change. Culture not only switch but also change according to the character of the technology itself.

In adopting new technology is not merely transferring technical problems, but also a cultural problem. In many cases, technological approaches that emphasize only technology perspectives are less successful. A cultural approach is needed when a community and society will adopt new technologies, because the issues are complex and interrelated.

Similarly, in the application of e-learning in the learning process, socio-cultural approach is needed if it is to succeed significantly. This is done by the manager eLisa, that is by observing the user culture of its users, the development of eLisa features also continue to be developed to meet the needs of its users to use eLisa usage more optimal. The transformation of values and behaviors in the use of elisa is the value of efficiency, the ethos of learning and the development of self-learning culture through growing awareness by using eLisa from students.

References

Bell, Jane. E-Learning: Your Flexible Development Friend, 2007. http://emeraldinsight.com

Chen, Hong-Ren & Tseng, Hsiao-Fen, 2011. Factors that Influence Acceptance of Web based E-Learning Systems for The In-service Education of Junior High School Teachers in Taiwan. Evaluation and Program Planning Journal, Vol. 35 (2012) pp. 398-406

Dabbagh, Nada. 2005. Online Learning Concepts, Strategies and Application. New Jersey: Pearson Education, Inc.

Edmunson, Andrea. 2007. Globalized E-learning Cultural Changes. London: Information Science Publishing.
Flew, Terry. 2005. New Media: And Introduction, 2nd Ed. Victoria: Oxford University Press.
Horton, William. 2006. E-learning by Design. San Fransisco, CA: Pfeiifer
Kartodirdjo, Sartono. 1999. Multi-Dimensi Pembangunan Bangsa Etos Nasionalisme dan Negara Kesatuan, Yogyakarta: Kanisius.
Lee a, Byoung-Chan et al. 2012. Learner's Acceptance of E-learning in South Korea: Theories and results. Computers & Education Journal, Vol. 53 (2009) 1320-1329.
Li, Baomin. The Use Of E-Learning In Pre-Service Teacher Education, 2009. http://emeraldinsight.com
Lievrouw, Leah A & Livingstone, Sonia. 2006. Handbook of New Media: Social Shapping and Social Consequences of ICTs. Update Student Edition. London: Sage Publication, Ltd.
Lin, Xiadong. 2001. Reflective Adaptation of a Technology Artifact: A case study of Classroom Change. Cognition and Instruction Journal. Vol. 19, No. 4, pp. 395-440.
Littlejohn, Allison & Peggler, Chris. 2007. Preparing for Blended E-learning. New York Routledge.
Nabi, Robin L & Oliver, Mary Beth. 2009. Media Processes and Effects. California: Sage Publications.
Pacey, Arnold. 2000. The Culture of Technology. Massachusetts: MIT. Press
Piskurich, George M. 2006. Rapid Instructional Design: Learning ID Fast and Right. Second Edition.
Pynoo, Bram et al. 2012. Teacher's Acceptance and Use of An Educational Portal. Computers & Education Journal, Vol. 58 (2012), pp. 1308-1317.
Sallis, Edward. Total Quality Management In Education. Ircisod : 2010
Saye, John. 1997. Technology and Educational Empowerment: Student's Perspectives. ETR & D Journal, Vol. 45, No. 1997 pp. 5-25.
Spector, Michael J. (eds.) et.al. 2008. Handbook of Research on Educational Communication Technology. Third Edition. New York: Taylor & Francis Group, LLC.
Teo, Timothy. Modelling The Determinants Of Pre-Service Teachers Perceived Usefulness Of E-Learning, 2010. http://emeraldinsight.com
Wahyono, Bayu S. 2011. Optimalisasi Program Desa Informasi melalui Penguatan Kelembagaan. Jurnal Teknokom, No. 14 Volume 4. 2011. Yogyakarta: BP3I Kemkominfo.