

Designing e-learning: Shouldn't We Be Ready?

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Abstract

E-learning has been marked as indicator to the fifth generation of distance education. The implementation of e-learning enhances, not only distance learning system, but also face-to-face or conventional learning system. In Indonesia, e-learning has been a buzz word in every campus. Many higher education institutions are trying to adopt the e-learning system, based on the prospects and potential of e-learning. A number of initiatives have been designed and developed. Although it is considerably small, it has been valuable initiatives for higher education in Indonesia, especially for the purpose of modelling and prototyping e-learning. This paper discusses a few initiatives which has been facilitated by SEAMOLEC, some factors to be considered in designing and developing e-learning, the perception of academic staff members as e-course developers, in terms of factors supporting their success. In addition, some constraints faced by the institution as well as staff members in their involvement in the designing and development effort of e-learning are also noted.

Introduction

E-learning has been the newest educational innovation at the beginning of this 21st century. It is believed that e-learning has the capability to meet a wide variety of learning need and for all kinds of learners in many countries. E-learning can provide stimulating interactive application for learning at home, in school, and in the workplace. Students can share learning

experiences over great distances through the use of collaborative learning tools available in e-learning. Enterprises can participate in novel application for on-the job training, while advanced networks and learning services can overcome communication problems in the training of professionals in remote areas. Appropriate combination of e-learning with traditional face-to-face classroom based teaching and learning is perceived to improve access to quality education, as well as to provide practical support for learning about the digital tools of today's society. In addition, the accelerating development of e-learning has contributed significantly to the emergence of ICT-based distance education or virtual learning in all parts of the world (Khan, 2002). Taylor (2001) even claimed that e-learning has been the fifth generation of distance education.

The trend has such an intrusive presence that creates a compelling "perceived" needs to be at the leading edge among the higher education institutions. This so-called technological imperative has elicited a range of reactions among higher education institutions. Today, it has been the buzz word in every campus. Seen as the most feasible, inexpensive, and "easy" mode of education which can open up access to education for many students, many higher education institutions rush into the business of e-learning. The business is made relatively easier through the support of the technological imperative. Some institutions, which have access to the high technology, claim that they are offering the so-called an e-learning venture.

This paper discusses a few initiatives which has been facilitated by SEAMOLEC, some factors to be considered in designing and developing e-learning, the perception of academic staff members as e-course developers, in terms of factors supporting their success. In addition, some constraints faced by the institution as well as staff members in their involvement in the designing and development effort of e-learning are also noted.

The promise of e-learning

Appropriately targeted and skillfully designed, the e-learning is able to address the development of skills needed by the workforce of this age in any countries, i.e., good communication skills, ability to learn independently, social skills, teamwork skills, ability to adapt to changing circumstances, thinking skills, knowledge navigation. In addition, e-learning is highly potential in empowering the learner. Knowledge navigation is actually a part of the learner empowerment, since it removes the image of the teacher as the sole source of information, and allows the learner to explore other sources. However, the most significant aspect of empowerment lies in the cultivation of learning to learn skills, thinking skills, and communication skills. The e-learning has the capability to effect such learning by incorporating course activities which require student initiative, student discussion, student reflection, and iterative attempts to improve student work. Well-designed e-discussion can elicit more student participation. Done asynchronously, there would be no awkward pauses while waiting for student response. Students have more time to give well thought out responses. At the same time, there is pressure to do so considering that the responses are recorded and therefore subject to closer scrutiny by others. E-learning allow teamwork even if the students are geographically distant. Even the cultivation

of social skills can also be facilitated through the e-learning (Padolina, 2001).

In short, e-learning propagates the creation and distribution not just information but also knowledge, the analysis and application of the technology, for the betterment of the society. Nevertheless, as in many other types of learning process, the design of learning experiences is significantly required to achieve the expected outcome. The design of e-learning experiences involves exploration of the premises of e-learning –to achieve optimal outcome. In this case, it is clear that the premises of e-learning alone is not enough for learning to take place, unless there is a design attached into it, for the e-learning to become a reality.

E-learning Initiatives

SEAMOLEC has established linkages with the national, regional and international institutions, both public and private, in the field of open learning and distance education. Nationally, it has linkages with the Indonesian Distance Learning Network (IDLN), the Center for Communication and Information Technology for Education (*Pustekkom*), some universities and institutes, some directorates of the Ministry of the National Education, and also private sectors.

Regional/International linkages include the International Council for Open and Distance Education (ICDE), UNESCO, UNICEF, ASEAN Foundation, French Embassy, Japan Embassy, Thai Embassy, World Bank, other SEAMEO Centers, and some educational institutions in Vietnam, Thailand, China, Philippines, United Kingdom, Australia, Malaysia, Singapore, and Canada.

Based on the promises of e-learning, many higher education institutions decide to embark on making the e-learning an initiative. SEAMOLEC, as the SEAMEO center for open and distance learning in

Southeast Asian region has been facilitating some of those initiatives. The initiatives are highly diverse, ranging from simply ICT-literacy training for lecturers and instructors as a preparation of the more high-tech initiatives, up to some efforts to actually design and develop web-based courses for the e-learning initiatives.

The ICT-literacy training to lecturers in higher education was started by SEAMOLEC since 1998. Thus far, SEAMOLEC has trained more than 1600 teachers, lecturers, and instructors from Southeast Asian countries. In addition, SEAMOLEC has also been engaged in trying out a virtual campus using WebCT platform since 1999, and open source platform since 2005

A collaborative project on "Connecting Southeast Asia and European e-Learning Project" (CAE-e-Learn) has been carried out by four higher education institutions in Europe and three institutions of SEAMEO in Southeast Asia, especially for pilot testing e-learning system and environment. The four institutions are University of Oberta Catalunya (UOC, Spain), Fern University (FE, Germany), Tilburg University (TU, the Netherlands) and Pole University. European de Montpellier et du Languedoc Roussillon (France). The three institutions in Southeast Asia are SEAMEO Secretariat, SEAMEO VOCTECH and SEAMEO SEAMOLEC. The main objective of the project is setting up an effective collaboration between the SEA and European partners involved, aimed at a future deployment of an e-learning platform for ODL, capable to support all the activities of a ODL operator, based on the solutions/products already available in the market or owned by the project partners. The CAE - e-Learn project was sponsored by European Commission for two years of 2003-2004. A part of the activity of the project is piloting e-learning platform named i-Aula developed by UOC, and a commercial platform of WebCT. The pilot test was

aimed at testing a workable platform in Southeast Asian Virtual Learning Model Setting.

Higher education institutions which have initiated e-learning, as a result of SEAMOLEC's training include: Indonesian Open Learning University (UT), Brawijaya University, Trisakti University, Jakarta State University, Hasanuddin University, Yogyakarta State University, Maejo University, Udayana University, Lampung University, Islamic University of Sultan Agung, Central Luzon State University, and some others.

Lesson Learnt

From the efforts, SEAMOLEC found out that e-learning environment cannot be easily formed. The idea of information exchange and sharing, and interactivity were not automatically developed, each person was waiting for the other person at the other end to initiate. Some participants were keen observers, in which they were enjoying others' interaction and sharing, but they were not actively involved in such activity. For some lecturers, the situation was not taken seriously; they were just enjoying the training, but no further activities were taken as the result of the training afterward.

In a face-to-face learning environment, active lecturers are believed to stimulate students active learning. However, in an e-learning environment, active lecturers do not guarantee stimulation for students active learning, even sometimes they can be counterproductive, since the lecturers' activities become the dominant action over the whole learning process. In this situation, students autonomy became lessened, which further caused low motivation for students to be engaged in an e-learning situation. Students' low participation and motivation might also be caused by technical constraints such as limited access to computer or network, and also lack of ICT and internet skills. Other technical constraints also

indicated that the content development did not meet students learning needs. Some of the students commented that the e-learning materials were difficult and confusing to them. Some e-learning materials were designed by not taking the full advantage of the learning management system (LMS) being implemented. In the end, nevertheless, the students claimed that it had been a good learning experience for them.

From the perspective of the lecturers who were involved in the development process of the web-based courses, it was found that they had a very positive perception on web-based courses and implementation of e-learning. They stated that participation in e-learning will be prestigious for the institutions, and also offers a good alternative medium of instruction.

At planning stage, faculty members realized that in order for them to be able to design a web-based course, they should:

- have knowledge in selecting the course carefully, and only to select the course that needs to be delivered through multimedia.
- have to have good knowledge on the subject matter area
- be able to work collaboratively, from time to time, with an instructional designer and an LMS expert,
- have to have familiarity with the software and application being used.

The lecturers also reported some concerns during the design process, i.e.,

- the instructional designers did not have enough knowledge (detailed knowledge) on the LMS, while the computer technicians did not have knowledge on systematic instruction and learning
- a high frequency of communication between developers, instructional designers, and computer technicians were required and it took time

- some faculty members did not have the skills to “draw” using computer – while finding the right images were not easy
- some faculty members felt that their computer knowledge and internet skills were not adequate, neither was their knowledge on the subject matter area of the course
- technical concerns include:
 - the logic of hypertext was confusing
 - LMS was frequently stucked (“hang”)
 - there was “fatal” virus eating my program!
- access to hardware and software was minimal to faculty members.

Finally, when they had been participating in the development and a try-out process, lecturers claimed that:

- “yes, I can do it, but not yet satisfied with the end-product”
- the product was more of an e-text than a web-based course for an e-learning environment,
- they were merely collecting all the pieces of their course in soft-copy format and put them in the LMS.
- they would like to have more time to work on the development process and more (guided) training to be more familiar with the technology and CMS.
- would like to have students perception on the course, to be able to design courses optimally based on the students’ needs.
- they were worried about the utilization of the course by the students, since they were constraints, i.e., no access to technology yet, no appropriate skills to use the web-based course

Some other issues concerning the integration of e-learning in the higher education system were also identified as follows:

- Some universities’ system is not yet ready for implementation of web-based

courses: problems of connectivity, access, hardware, software, and facilitators

- The dissemination of the concept (and skills) of web-based courses should be carried out systematically – in carefully designed stages – for all faculty members (not to specific group only)
- The exploration of the LMS features has not been maximal – methods of instruction is relatively simple, and interactivity is still low (just like transferring the face-to-face classroom to web-based course)
- Students need to be supported to assist them in using the web-based course, i.e., announcement, manuals.
- Systematic planning and implementation are needed, and the effort does not lend itself to be merely a trial and error effort. That means prioritizing courses to be developed (and the underlying reasons for it), setting a reliable, accessible, and high quality system, and training its faculty members, technicians, and also instructional designers on e-learning.

Remarks

With the development of ICT and its influence both toward face-to-face education and also distance learning, e-learning is perceived to be a popular alternative learning system discussed in many occasions by many higher education institutions. Nevertheless, most of the discussions focus on the preparation of hardware, software, and infrastructure (net). Only few discussions focus on the preparation of the learning environment, learning actors, and its management system to be able to implement e-learning at its best performance. E-learning is not the same as putting the regular face-to-face instruction into a digital format. Therefore, the implementation of e-learning requires a shifting paradigm of learning and instruction from face-to-face instruction

alone to include independent and or facilitated and mediated learning, a new working and operational management system which requires a clear delegation of authority, job description, and transparency at all levels and steps, ICT literacy and culture among users which includes students, lecturers, and also administrators, and systematic planning of ICT utilization. These considerations may not be thought of at the regular face-to-face instructional situation. Thus, the necessary condition must be first met.

Based on the results of some e-learning initiatives, it seems the basic problems lie not merely in availability of hardware, software, and infrastructure. The concerns reported by the lecturers and the students' experience in an e-learning situation have indicated that there are serious problems in terms of psychological readiness and skills readiness of different categories of users, and system readiness, even after those hardware, software, and infrastructure are available. Therefore, these factors are to be taken into consideration by many higher education institutions who wish to initiate e-learning.

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