

# From Blended Learning to eLearning: Experience with the MScICT Program

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## **Abstract**

*School of Information Technology (College of Internet Distance Education, Assumption University of Thailand) offers the M.Sc. in ICT program in eLearning. In the beginning, restricted by the lack of public approval of eLearning in the country, the program was offered in blended mode with the support of ITPlus (the web-based LMS and support system) together with streaming classroom video. Since May 2006, the program has been offered in eLearning mode whereby class attendance is completely optional. Following the transition, students are queried for their opinions on the system and its effectiveness. The approach receives favorable opinions and considered equivalent or slightly better than traditional classroom mode. The transitioning from traditional classroom to blended mode and finally to eLearning mode attributes mainly to the acceptance of the program by the students and the smooth operation.*

## **1. Introduction**

Assumption University of Thailand has established College of Internet Distance Education as a unit responsible for eLearning in 2002. The first curriculum was the Master of Science program in Management, which was offered since September 2004. The second was the Master of Science program in

Information and Communication Technology (M.Sc. in ICT), which was offered since May 2005. The author has been responsible for the M.Sc. in ICT program as its program director since the birth of the program.

Even though the program was intended to be offered in eLearning mode from the beginning, it could not realize this objective during its first year of operation due to the lack of support in terms of government's recognition of the degrees earned through eLearning. With this constraint, the program was offered in blended mode. The program has transitioned into the full eLearning mode starting in the May 2006 semester following the approval of the eLearning criteria and regulation by the Ministry of Education of Thailand in October 2005. According to the report from Sloan Consortium in 2005 [1,2], blended learning is the learning mode in which the Internet is used 30%-79% of the time for teaching and learning activities while eLearning or online learning employs the Internet 80% or more.

The paper is organized as follows. The LMS and supporting system is briefly described in section 2. Section 3 and 4 explain the management and operation of the program in blended and eLearning mode, respectively. Section 5 reports the preliminary evaluation results based on students survey. Conclusion is provided in Section 6.

## 2. LMS and Supporting System

The teaching and learning activities are centered around the online web-based system called ITPlus, which is developed based on the famous open-source *Moodle* software [3]. In addition to the course management feature provided by Moodle, the following components are provided:

- *Admission System*: including the online application form, online aptitude tests, and online interview scheduling,
- *Online Transcript*: for unofficial grade releases and examination results,
- *PowerV*: for delivery of course lectures through image-based slides synchronized with instructor video.

Other components, such as web hosting, presentation archives, online petitions (pending), are also provided. Almost every component of the system is integrated into the single ITPlus system. Through single-signon, students and instructors can access all components seamlessly and easily.

## 3. Blended Learning (May'05 – April'06)

In the beginning, all students of the program were required to come to class to satisfy the minimum class attendance percentage similar to the traditional classrooms being conducted at Assumption University. In some classes, lectures were recorded and made available as streaming video on the ITPlus system. Moreover, assignments were posted and submitted online, and class forums were encouraged as the primary medium for students-instructors interaction.

For three semesters, the blended learning methodology as described above has been employed by the M.Sc. in ICT program. Some notable advantages can be qualitatively identified:

- Lectures can be reviewed many times online through the streaming lecture

video. This is especially important since classes are conducted in English, which is not the native language of most students.

- Students can build personal relationships with other students as well as instructors. This kind of relationship becomes one of the most important factors of effective learning. Majority of students gain their knowledge through group tutoring and direct interaction with other students, which could not happen unless they have established personal acquaintance with one another.

There are, however, some disadvantages, which arise mostly due to the limitation of the system, available resources, and regulations:

- Classroom video takes at least 4-5 days until it can be made available on the web, which might be too long for some students.
- Video and audio quality is lower than pre-recorded lectures made in the studio.
- Class attendance is still mandatory; therefore, some students find it inflexible and inconvenient.
- Classroom video could not be produced for all courses due to the limited number of equipment and personnel.

Overall, students were satisfied with ITPlus and the classroom streaming video as was evidenced from the complaints about the lack of video in certain classes.

## 4. eLearning (May'06 – Present)

Following the approval of the eLearning criteria and regulation by the Ministry of Education of Thailand in October 2005, the program transitioned into the full eLearning mode by making class attendance completely optional. In addition, classroom video has

been superseded by pre-recorded instructor video presented through *PowerV*. In the current stage, *PowerV* is composed of image-based slide presentations synchronized with instructor video in Windows Media streaming format.

The primary objective is to maintain the quality of the program. The program should be at least equivalent to the traditional or blended mode program, if not better, in terms of quality of students. Student evaluations are still performed through proctored examinations organized by the school. Students in remote areas can take the same examinations through authorized testing personnel or centers.

One of the primary concerns is how to engage the students to the enrolled courses on a regular basis. The initial solution is for instructors to post assignment regularly, perhaps every week so that students are motivated to access the system and study the course material regularly to be able to submit the homework.

Notable advantages are observed as follows:

- It is suitable and flexible for students who do not have time to attend class regularly.
- Pre-recorded lectures have better video and audio quality; moreover, the video is shorter than the classroom video.

Some difficulties have also been observed:

- The emphasis on regular assignments place lots of extra workload on students. Some students find that it incurs too much burden and could not manage to complete all the given assignments on time.
- Lack of face-to-face interactions among students and between students and instructors. Each student has to individually progress through the course. The lack of group tutoring among students themselves can leave

under-performed students at the very bottom of the class.

The issue with personal interactions has been identified early and even before the beginning of the program. A few optional face-to-face classroom sessions have been provided for interested students. However, not many students participated in the sessions. Moreover, a few seminars have been organized and recommended for students, such as a 2-day student orientation and various academic seminars and conferences. So far, the level of participations in these extra-curricula activities is still minimal because students still do not realize the importance of these activities.

## **5. Preliminary Evaluations of eLearning**

After almost three months after the transition from blended to eLearning mode, students are surveyed regarding their usage of the system and their satisfaction. Twenty-two students (out of 85) have responded to the survey. Overall, most students find the system easy to use (18% strongly agree, 68% agree) with satisfactory performance and reliability (9% strongly agree, 59% agree, 27% neither agree nor disagree). However, in term of effectiveness when compared to the traditional classroom mode, 50% think they are equivalent (neither agree nor disagree) while 14% strongly agree that it is better and 27% agree. Finally in terms of overall satisfaction with the approach employed by the school, 18% strongly satisfied, 45% satisfied, and 32% neither satisfied nor dissatisfied with 5% (1 person) with dissatisfaction.

Another set of questions compares the streaming classroom video as employed in the blended mode with the *PowerV*-based lecture video employed in the eLearning mode. The classroom video receives 13%, 33%, 33%, 7%, 13% for strongly effective, effective, no comment, not effective, and

strongly not effective, respectively. The *PowerV*-based lecture video receives 23%, 41%, 32%, 5%, and 0% in the same sequence of effectiveness. *PowerV*-based video, therefore, is slightly favorable and more effective than the classroom video based on students' opinions.

Another observation is that the eLearning students access the system more often than the blended-mode students, which is the direct consequence of the elimination of regular classrooms.

## 6. Conclusion

The school has finally realized its objective in offering the eLearning program with its first degree program, M.Sc. in ICT. The program was started as the blended-mode program and later on transitioned into the full-blown eLearning program. Based on the survey of students' opinion, the program in both modes received favorable results with perceived program quality at equivalent to or slightly better than traditional classroom program. The author also believes that the gradual transition from traditional classroom mode to blended mode and finally to eLearning mode is an important factor to the acceptance of the program.

## References

- [1] I. Elaine Allen and Jeff Seaman (2005), "Growing by Degrees: Online Education in the United States, 2005," Sloan Consortium, November.
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- [3] "Moodle – A Free, Open Source Course Management System for Online Learning," <http://www.moodle.org>