

Review

Flexible learning programme (FLP) in Universiti Teknologi MARA: New opportunities for Malaysian higher education and training

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The Flexible Learning Programme (FLP) has enabled the process of education and training to be expanded in an online virtual college mode, enabling students to use the state-of-the-art, and multi-media, e-Learning techniques. University Technology Mara (UiTM) has responded by applying the revolutionary new eLearning concept in her attempt to be futuristic towards the next generation of distance-learning. In doing so, the flexible learning programme offers an expanding range of exciting new formats for ICT and website design courses. Students may access the readymade information and references electronically and communicate online and interact through Internet. UiTM in general and the Faculty of Information Management in particular has moved a step further in providing education through Internet, known as the flexible learning program. This faculty became the first to provide a master's program through flexible learning known as the Masters of Science in Information Management. The first group of 77 students came from all over Malaysia. It is interesting to note that the response from the participants has been encouraging despite the fact that this is a new mode of learning in Malaysia. The monthly seminars that are being held not only help in the reinforcement of the student's capacity to absorb and to consolidate the sessions, but also to provide a good forum for discussions. This paper will attempt to explain the FLP and how it has so far sustained in meeting the objective of the program, despite the fact that it is of recent phenomena. This program has run smoothly and the rate of students' response have continuously been encouraging.

Key words: University technology Mara, faculty of information management, masters of science in information management, UiTM, flexible learning programme, e-learning.

INTRODUCTION

Although the University Technology Mara (UiTM) has long been involved in continuing education, most of the programmes were based on face-to-face contact, held after office hours or during weekends. The year 1998 saw a new shift in the mode of the continuing education in UiTM, taking full advantage of the advance of ICT. The flexible learning programme (FLP) via internet was launched, beginning with the diploma programmes,

followed by the bachelor degree programmes. Subsequently, in 1999 the first master's programme, Masters of Science in Information Management was started via the Internet. FLP is a flexible supported distance learning which incorporates a variety of teaching and learning methods such as distance learning, seminars, video conferences, lectures and e-mail. Distance learning materials supported by a system of tutors and mentors, with staff from the University visiting the region could deliver specific taught modules to provide students with support and guidance. As with the UiTM full-time students, this mode also provides students access to University staff and other resources via the

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Internet and e-mail. FLP is defined “as a student-centered approach to education which offers the student increased choice in what to learn, how it is learned and assessed, and when and where learning happens” (report of the academic board working party on flexible learning). The objectives of the FLP are to:

- i) Promote the goals of the National Educational Philosophy develop a skilled workforce for the information age.
- ii) Produce a thinking and technology literate workforce.
- iii) Develop students physically, mentally, emotionally and spiritually.
- iv) Provide opportunities to improve individual strengths and abilities.
- v) Democratize education.
- vi) Increase stakeholders' involvement.

This flexible approach in education and training is characterized by the flexible entry, program components, and modes of learning and points of exit. The learners' control and choice regarding the content, sequence, time, place and method of learning has been clearly defined. There are also an appropriate learners support systems and its application of learning technologies where appropriate. Another factor is the easy access to appropriate learning resources and the flexible assessment processes. Several aspects which are important to this mode of learning includes flexibility in delivery and participation, setting educational goals, different styles of learning, structure of courses, student choice of units of study, methods of assessment and in postgraduate research. This article is structured as follows: First we introduce the benefits of e-learning for our situation and compare that with our conventional programs. Then we will present FLP, an e-learning program we implemented at our university and discuss its merits.

FLEXIBLE LEARNING PROGRAMME

In line with one of the university's objectives which is to provide maximum opportunities to pursue professionally recognized programmes of study in science, industry, technology, business, arts and humanities, the flexible learning programmes was developed to magnify the University's reach and improve its productivity and quality of teaching (The MARA University of Technology, 2006). Information and communication technologies (ICT) have the potential to enhance the production and transmission of knowledge in universities. New technologies can be applied to innovative educational concepts and teaching and learning scenarios. Amongst other things, ICT can help to efficiently organize mass lectures through the storage and dissemination of electronic learning material; ICT can enhance flexible learning by providing students

with permanent access to learning resources and by widening their learning options independent from place and time; and ICT can help to raise quality standards and to create a culture of excellence in teaching and learning by adding digital communication channels for increased interaction, collaboration and dialogue to the course setting (Bates 2000: 21; Nowotny et al., 2001: 88; Salmon, 2006). The FLP is open 24 h per day, 365 days per year enabling access to remote areas with the optimum utilization of e-learning facilities. Other student benefits include: a) opportunities offered by the “anytime, anywhere” accessibility, b) ability to work at one's own pace and c) allows students to reflect on materials and their responses before responding (Matthews, 1999). Of late, the number of students enrolled in the FLP programme has increased, and a look at this program is attempted with the goal of sharing the experienced derived. At the Faculty of Information Management, the e-learning program has revolutionized the way to empower a workforce with the skills and knowledge it needs to turn change to an advantage. It has been observed that the retention for a learner varies based on content type and the delivery vehicle. The better the match of content and delivery vehicle to a learner's style, the greater the retention and therefore the greater the results are. This observation helps stimulate our strategy, with the goal of achieving world class standard and be innovative from time to time. Having successfully implemented our solutions to our local students first we are taking this advantage to also act as a model for our customers abroad.

The status and recognition of the FLP are the same as the traditional programs where it requires similar requirement from the entry up to the graduation such as entry requirements, academic regulations, performance assessment, graduation requirements and recognition of diploma/bachelor/master. The difference is only the physical location of the students. Applicants for both the FLP and the conventional modes for the Masters of Science in Information Management must have a good bachelor's degree or an equivalent recognized professional qualification in any discipline. However, the candidates for the FLP are required to have a minimum of two years relevant work experience after obtaining their bachelor degrees and a minimum age of 23 years when starting the program.

UiTM's rolling online application towards a mega university

Prospective students may now apply to enroll in the FLP program anytime online, through the UiTM Online Application System@2000. This system enables applicants to be transacted online and that they will be accepted as well as processed on a “rolling” basis at any time of the year. This system complements the present

Table 1. Historical development leading to the introduction of FLP - M.Sc. information management.

Num.	Date/Year	Event
1	Sept 20, 1999	The UiTM's Senate has approved the FLP-M.Sc. Information Management.
2	Oct 16, 1999	The first workshop for module writers.
3	Nov 1 - 4, 1999	The follow-up workshop for module writers.
4	May 31 - Apr 2, 2000	The second follow-up workshop for module writers.
5	June 8-9, 2000	Workshop on the FLP Online System for RP and LF
6	June 10, 2000	Interview for June 2000 intake.
7	June 24, 2000	78 candidates were officially registered as the FLP-M.Sc. Information Management.
8	June 24 - 26, 2000	3 days and 2 nights executive seminar for all students.
9	July 29, 2000	Workshop for new module writers.
10	July 30, 2000	The second executive seminar.
11	Aug 27, 2000	The third executive seminar.
12	Oct 1, 2000	The fourth executive seminar.
13	Oct 22, 2000	Final test.

paper-based applications introduced as part of the university's enhancement in its services. At the initial stage, the 100% browser-based online application system will be used for applicants who wish to enroll to the continuing and FLP programs. The system consists of three inter-related sections namely: pre-application section, administration section, and post-application section. With this system, applicants do not have to travel to UiTM campuses or join the long queues to purchase application forms, saving time money and frustrations. The online forms are always there where they can complete and submit the applications in the comfort of their own home, office or cyber-cafes. Future students can also check the status of their applications immediately and regularly after the submission. The system is so convenient and easy to use and accessible since students can reduce their time to complete and submit their applications. Errors may be reduced when converting applicants' data from paper-based to electronic format with a reduced processing time. The system will allow data to be captured immediately for academic as well as administrative use.

The system also allows 'rolling' application where applicants can submit their application at any time during the year without having to wait for advertisements. Although the present paper-based application procedure will still continue, the online system complements it.

THE M.SC. INFORMATION MANAGEMENT (FLP)

The nation's strive towards becoming a developed nation by 2020 requires more people who should be given the opportunity to gain nationally recognised qualification to meet the competitive edge. As competition grows, excellence in their present role may not be necessarily sufficient to earmark them as potential senior managers. Specialised and additional knowledge and qualification

are required to achieve better skill, comprehension, perception and drive - the qualities needed in most management posts. The Master of Science in Information Management is widely regarded as the premier information management qualification for practicing information and knowledge professionals with managerial responsibility and for those aspiring to enter the varied field of information management. The broad information management knowledge acquired reflected through the courses offered in the MIM programme helps achieve these qualities. It began as a part time programme in 1997 while the full time mode began in 1999. A brave effort was initiated with the introduction of the first batch of student under the FLP mode by course work in 2000, making it the first masters program under this mode. The MIM complements a bachelor degree in any discipline and builds on existing work experience to focus and enhance opportunities for career progression. The courses are designed to broaden and deepen knowledge of information and knowledge management concepts using analytical processes and logical thought. The courses have been developed by those with real experience in the information management and are supported by experienced academic staff and the ICT facilities of UiTM. Table 1 shows specifically the chronological development leading to the introduction of FLP - M.Sc. Information Management. The M.Sc. Information Management is designed to meet the needs of working professionals coping with ongoing work situations and pressures. The program was developed to incorporate flexible time scales allowing minimum disruption to work practices, breaks in study in the event of urgent circumstances without loss of achieved academic credits, geographical flexibility which allows you to continue study even if relocated to another part of the world, assessment strongly related to normal work activities and thus providing maximum return to employers and students during the course as well as

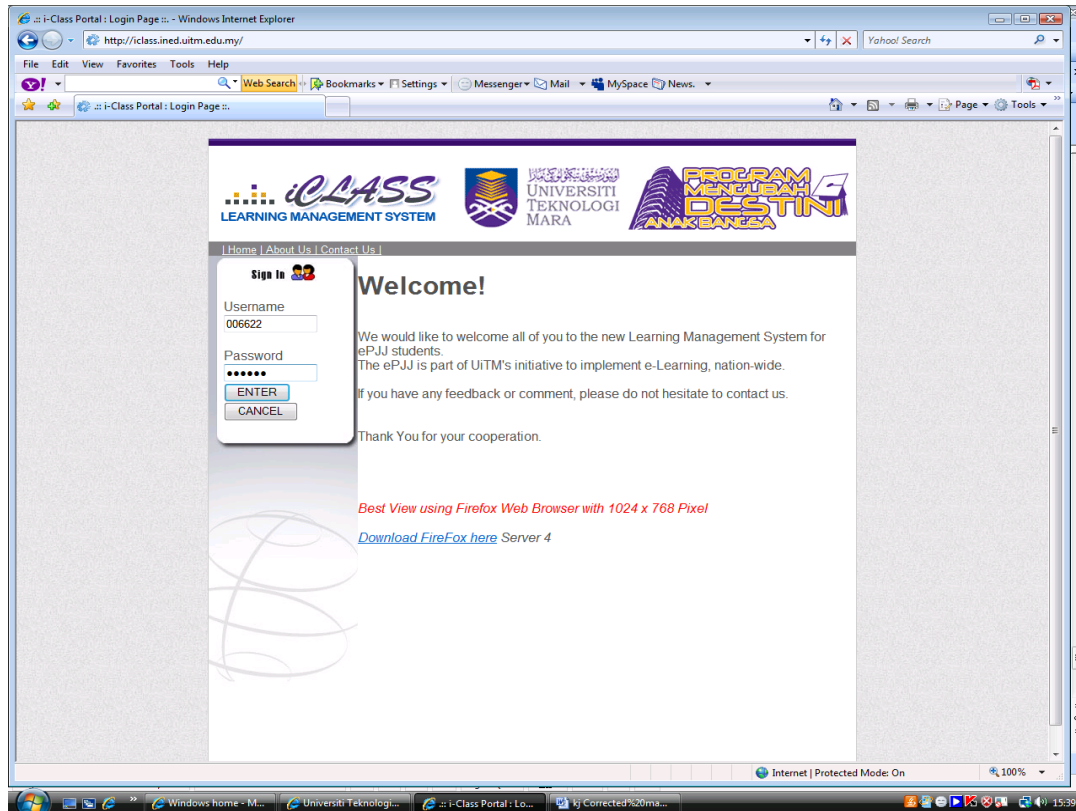


Figure 1. Login page for the i-learn portal.

after graduation. Those participating in this program would experience an extremely flexible means of study. Although students have to commit time to their studies, there are no rigid schedules to constrain them and no risks are involved in leaving work in order to study. In the event of job or location changes, they can rest assured to be able to continue their studies. It has been the mission of the Faculty of Information Management to satisfy the customers as they are the asset of our programme. It is important for us to understand their needs, values, fears and goals. It is believed that with good services the customers would be convinced, not only to continue with the programme but also helps in the publicity of the programme. The executive's seminars are done to reinforce the other communications generated in the e-mail and forums. It has been designed in such a way to be flexible and dynamic with a specific aim of providing a conducive and pleasant way to learn. FLP derives from the integration of three main components, namely:

Resource-based learning

The system provides some resources and utilities for the students to utilize and manipulate. They would be able to read the materials and even discuss on relevant topics as

well as to share knowledge, information, ideas and opinions among themselves. In the mean time, they are also needed to work independently, to seek for information and knowledge somewhat based on their own efforts, to be self-directed and be able to learn at their own pace and discipline.

Computer-mediated learning (CML)

Past studies have revealed that several components need to be considered for web-based course design and delivery. These components are course environment, learners' outcomes, learners' characteristics, and institutional and administrative factors (Tallent-Runnels et al., 2006). Bailey (2008), in studying the best practices for web-based teaching identified several other components such as timeliness, organization, relationships, technology, engagement, flexibility, high expectations and communications. Moore (1989) identified four types of interactions in education: learner-content, learner-teacher, learner-learner and learner-technology. The web-based system developed is dynamic and unlimited in terms of information input, delivery and access. Figures 1, 2 and 3 illustrated the e-learning environment which makes accessibility easy among students and lecturers.

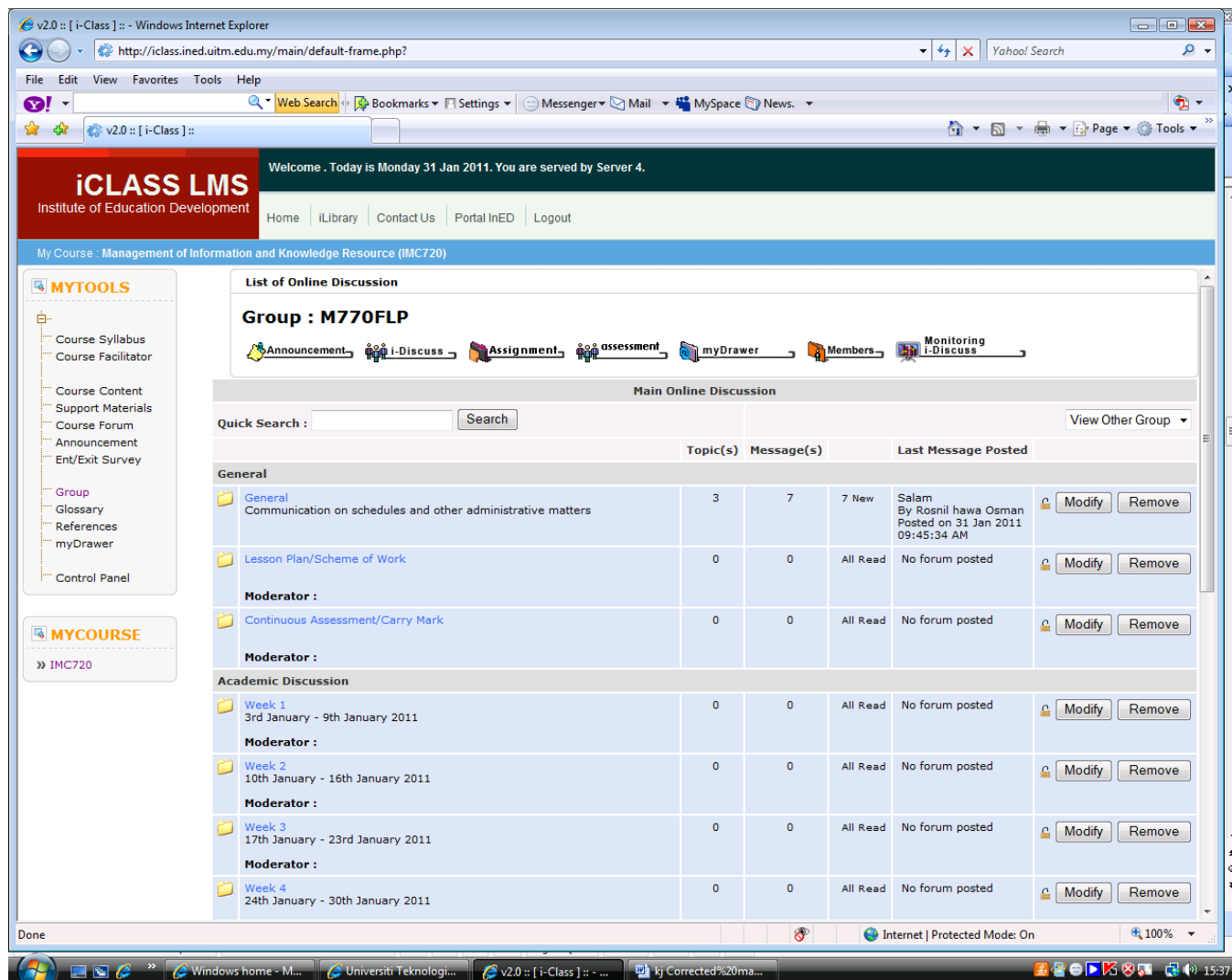


Figure 2. Students/lecturers online interaction interface.

The most common utilities manipulated among lecturers and students are the “collaborate” and “course info”. “Collaborate” provides such facilities like, email, chat and forum in which they might be able to extend learning through one-to-one, one-to-many and many-to-many interactions. The intranet enables the updating of current news and relevant information programme, provide students with supplementary information about their study subjects, and allow them to contact study and group colleagues via bulletin boards. Furthermore, if the students wish for supplementary notes and recommended reading list uploaded by the lecturers, it could be executed through the “course info.” as shown in Figure 3. The Internet enhances the flexibility of the system, allowing the unlimited materials posted in any file formats. The information or files available vary from word processing (MS Word), electronic spread sheet (MS Excel), presentation (MS Power point), movie (avi, mpg),

sound (midi, wave), multimedia (Director, Author-ware) and Internet pages (Web 2.0 including all its advance features). Other meaningful utilities are Hotlinks and Virtual library.

In hotlinks utility, both the lecturers and students are having fair capability to put the links of multiple related web sites to be shared among them. Virtual library is a platform for the students to make full use of the facilities like those online databases subscribed by the library and to retrieve pass year questions.

Direct learning

Basically, the teaching and learning process involves three ways, namely: a) reading the self – instructional material (SIM), b) direct interaction between lecturer and student via CML system as well as the traditional modes

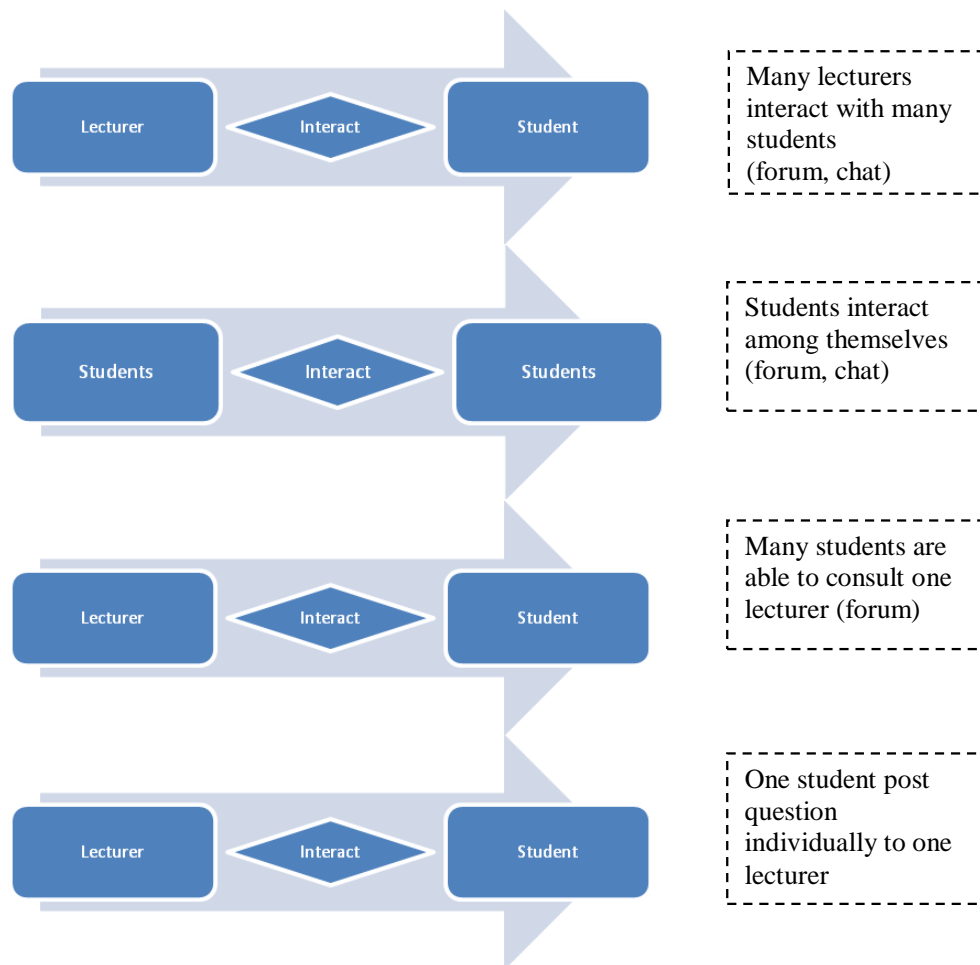


Figure 3. Relationship among students/lecturers through the CML system.

like telephone, facsimile and even face-to-face consultation upon appointment, and c) executive seminars held monthly to permit the students to meet their lecturers basically to discuss and clarify any uncertainty on the subject matters or even set for test and presentation. The entire FLP system requires participation from both the students and the lecturers to work closely to succeed. Figure 4 specifically showed the focus on what the lecturers and the students should do under the FLP system. Meanwhile, Figure 5 demonstrated the flow of interaction between students and the resources including lecturers, resource persons (RPs) and learning facilitators (LFs) within the entire system.

SEMINARS AS A REINFORCEMENT PROCESS

The main objective of the seminar session is to enable direct face-face contact with the goal of solving pertinent problems associated with the coursework and other

related areas. These sessions allow discussion, problem-solving and motivation. Basically, seminar is an important component that is specifically included to strengthen the FLP system as a whole. Roblyer and Ekhaml (2000) believed that there is the need for a highly interactive environment that built the social rapport and included quality reflections. The social aspects of interactions and a sense of classroom culture have been identified as crucial to students' success (Faculty Development Institute, 2006; Faux and Black-Hughes, 2000; Lynch, 2002; Osika, 2006; Thurmond, 2002). Therefore considerable effort has been put into the enforcement of the monthly seminars enabling the students to have the face-to-face contact with the subject experts called seminar facilitators normally appointed among the resource persons. Zhang et al. (2004) identify a number of advantages to traditional classroom learning such as immediate feedback to the student, familiarity with the experience and the cultivation of a social community. They further reiterated it is possible that the advantages inherent to online learning are often not sufficient to

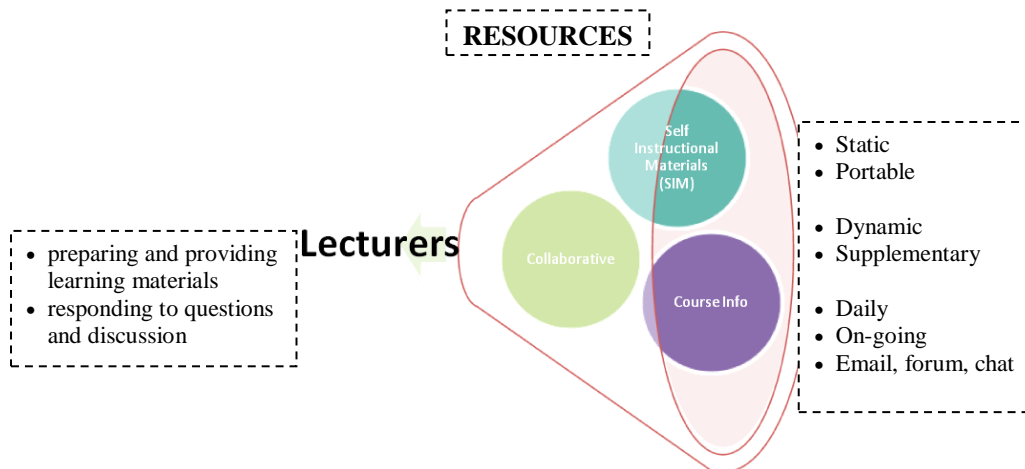


Figure 4. Resources available in the FLP (provided and initiated by lecturer).

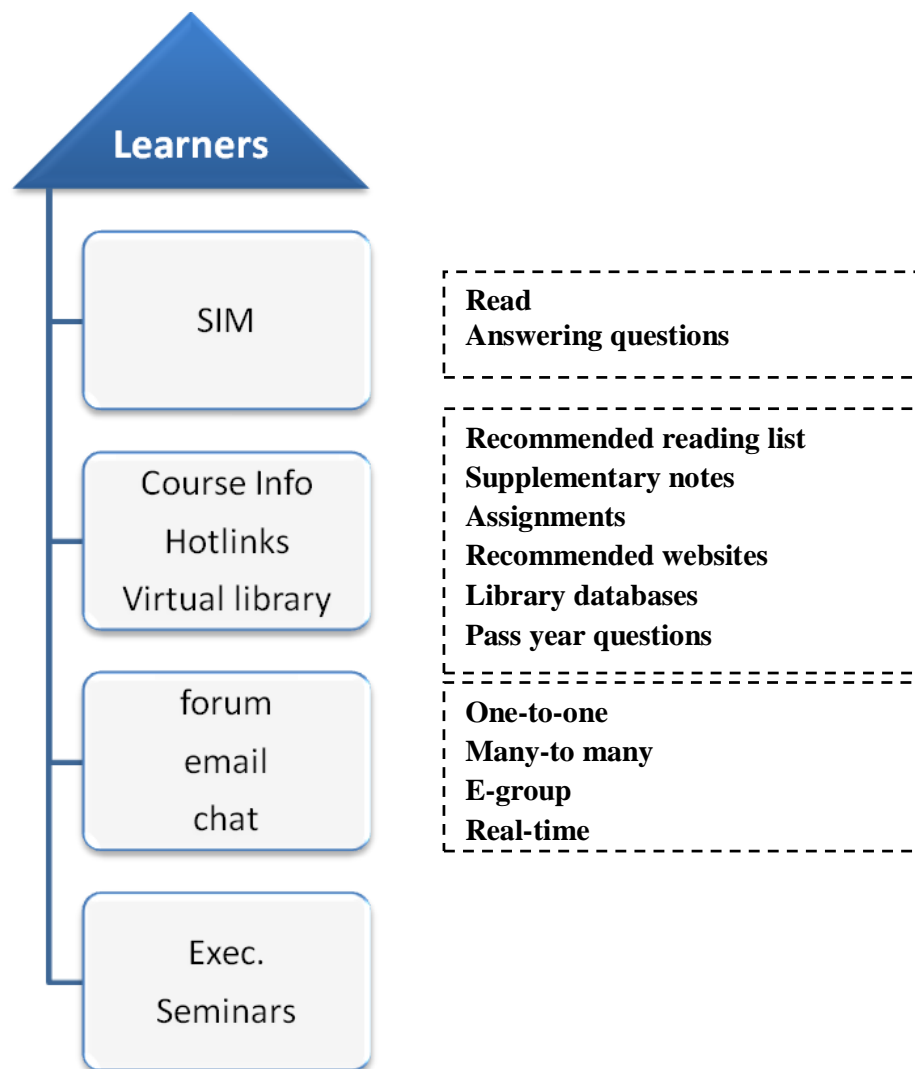


Figure 5. Interaction between students and the resources persons within the entire system.



Figure 6. FLP quality assurance providing a cycle in the learning process.

satisfy most students. It must be noted that student satisfaction is derived from much more than the course delivery mechanism. For example, an instructor who is able to motivate students in the classroom may not be able to tap into that characteristic when teaching online (McFarland, 2005). The seminars are commonly conducted on the last weekend of each month to ease the students from different parts of Malaysia to be present.

It has been designed as a platform to provide the participants with a facility to discuss and clarify on related topics, projects, assignments and any problem that are still unsolved via online mode. Sometimes the seminar would be the best channel for the students to sit for tests and also execute presentation on case study, term project and others.

QUALITY ASSURANCE

The quality assurance for this program is done at three levels, namely: internal assessment, external assessment and direct feedback from the customers (Figure 4). The internal assessment is being done by the course team, in accordance with the following checklist such as objectives of the modules, learning outcomes, overview concept map, study plan, structure of topics and subtopics; learning strategies, presentation style, interactivity of lessons and physical attraction. On the

other hand, the course is assessed by the external examiners every two years in accordance with the criteria, namely: program's objectives and levels, how the courses are designed to achieve the objectives, how the learners needs and expectations are met, the educational principles underpinning teaching and learning, the contents of the course – whether they are appropriate, up-to-date or accurate, self-instructional features and assessment of learning outcomes. Several direct feedbacks from the customers are usually obtained. For example, students would be asked to provide feedback based on the choice of media suitable for contents and learners, whether clear and adequate explanations are obtained and if interaction/reflection opportunities are given. This feedback will be noted and considered for future improvements. Students are also encouraged to give input during the program. Teaching in the form of a self – instructional material (SIM) is designed to enable students to take control of their own learning. It possesses features like informing, guiding, motivating, provoking, questioning, assessing, attracting and user-friendly. The design, development and production of learning materials is usually in the form of a “teamwork approach” which comprise of instructional designer, subject matter experts, information resources person, content editor, language editor, graphic artist and web designer (Figure 6). Throughout the assessment process, the delivery is taken into consideration especially the suitability of the choice of media for contents and

learners, whether the explanations are clear and adequate, opportunities for interaction and reflection.

The presentation style whether it be didactic, participative or constructive needs to be stressed. It is important that the presentation is systematic, that is from either general to specifics or from basic to intermediate. It is critical to ask if technologies require additional training for learners and teachers and how are these requirements being met. Several questions need to be raised in the quality of the learning process. For instance, are there activities for learners to do as an individual and in a group, are assignments/exercises based on real-world situations to reinforcing understanding, is interaction among peers and with the instructor built-in, does the assessment focus on creativity and thinking skills, is feedback on learners' performance timely and constructive, are library, computer lab, reading and study centers available for learners and are there trained tutors/counselors? The quality as assessed by customers can be looked upon from the aspect of the learning module and assessment, instructor, learning resources and support and overall administration. The duties and responsibilities of the "Resource Person" need to be carefully viewed where they have to prepare and manage supplementary materials for web-based learning, prepare assignments, exercises, tests, and grading schemes, cooperate and coordinate with module writers of the subject in the aforementioned duties, assist the program coordinator in selecting and training the "learning facilitators" for the subject. It is the responsible for the academic quality and credibility of the subject and should work in harmony with SME at the faculty/campus.

Meanwhile, there are also some duties and responsibilities of the "learning facilitator" which includes facilitating the learning process, managing and guiding on-line learners' discussions and interaction, assisting learners to overcome the learning difficulty, marking assignments, tests, and exams based on the marking schemes provided by the RP and in consultation with the SF. They also need to provide response to students' assignments, exercises, and test and feedback on the learning materials while monitoring the students' performance. On the other hand, the "seminar facilitators" have to facilitate the learning process during seminars, manage and guide learners' discussions and interaction during meetings, answer questions related to the subject, mark assignments, tests, and exams based on the marking schemes provided by the RP, in consultation with LF, provide response to students' assignments, exercises, and tests, provide feedback on the learning materials, monitor students' performance and avoid a one-way lecture during seminars.

In the aforementioned process, it is common to expect that there will be some issues related to 'students' learning culture'. Students normally do not read before seminars and just wait to be 'lectured'. They just want to pass the exam and get the certificate because they are

not interested in knowledge acquisition due to low self-motivation. The question to ponder is how much is this true in the Malaysian education system and it is the job of educators to help educate them.

STUDENT SUPPORT AND TRAINING

The FLP may subsequently enhance a number of opportunities in the information and IT business. With the expansion of the FLP programs throughout the country, a number of support systems have to be provided, both in terms of the physical and service facilities. Some of the support and value-added training that are in hand are branch campuses, paradigm shift, orientation and study skills, self-directed learning, library, change habits and lifestyle, study room, time management, cyber café, family and employer support and counseling.

Conclusion

The flexible learning mode Msc information management programme allows students to gain a postgraduate Masters through the combination of distance learning and intensive seminars over weekends on a monthly basis. While progress has been made, there is still room for improvement to provide quality customer service via the web. Education through e-learning helps students access to remote areas with the optimum utilization of information and educational technologies. It allows increase opportunities to higher education and lifelong learning, something that most adults were deprived before. Such democratization of tertiary education has helped accelerate the pool of knowledge workers for national development while at the same time increase national productivity and global competitiveness. The e-learning mode has gained momentum and has contributed to UiTM great to make it successful in line with the mega university concept.

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