

Evaluation of e-Learning: A Comparative Study between a Private College in Oman and an Affiliated University in UK

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Abstract – Private university colleges in Sultanate of Oman have implemented advanced technology in the educational system and many colleges have also been progressed by using the latest e-Learning Management Systems. Many colleges in Oman are affiliated with well-known reputed universities across the world to deliver advanced and quality education to the youth of Oman. However, it is imperative to evaluate the effectiveness of e-Learning in the private university colleges in Oman and with the affiliated college so that a comparative study could be conducted to analyze the quality of teaching and learning. This research done at Muscat College in Oman and University of Stirling, UK is an attempt to evaluate the effectiveness of e-learning technology in private university colleges in the Sultanate of Oman. This paper is determining the factors influencing the effectiveness of e-learning management systems. A questionnaire was addressed to 158 students and a representative sample of 120 students have been selected from year two, three and 4 four of honors' bachelor degree programme of Muscat college and University of Stirling.

Keywords: Evaluation, Effectiveness, Satisfaction, Experience, Frequency

I. Introduction

e-Learning is the delivery of a learning, training or education program by electronic means. E-learning involves the use of a computer or electronic device (e.g. a mobile phone) in some way to provide training, educational or learning material [1].

e-Learning is the unifying term to describe the fields of online learning, web-based training, and technology-delivered instruction [2].

"The effectiveness of an e-learners' experience is greatly enhanced through student-centered design. For example, students remember more information from a text book that is well organized, with extensive visuals, reflection/interaction points, clear headings, etc. The same concepts exist for online courses—learners learn better through use of clear headings, limited distracters,

visuals, screen-friendly fonts, appropriate white space, web safe colors, etc. Basically, effectiveness and usability is the process of testing and how students behave with a course—what works, what doesn't, what confuses" [2].

e-Learning can be asynchronous (meaning learners are experiencing the learning at different times) or synchronous (meaning learners are experiencing the learning at the same time) or it can incorporate both drawing on the strengths of each. Independent learning is, by definition, asynchronous, facilitated and collaborative can be either asynchronous or synchronous. Some of the more obvious benefits of e-Learning include consistency of content, ease of customization, learner control, and reduction or elimination of travel costs to attend learning events. Consistency of content is achieved by the same learning being made available to

anyone, anywhere, anytime with no degradation to the quality or effectiveness of the content or presentation.

Learner control lets each learner complete just the sections of the learning they need leaving them free to come back at any time for more or to review what they have already covered. As Marc Rosenberg puts it, "E-learning can reach an unlimited number of people virtually simultaneously... Everyone gets the same content, presented the same way. Yet the programs can also be customized for different learning needs or different groups of people." [3].

Because of its digital nature, e-Learning can be cost and time-effectively customized to individuals or small groups. The same content can be offered in a multitude of formats: self-paced, facilitated, in the classroom, blended. Also because of its digital nature and the flexibility provided by intranets and the internet, travel costs are greatly reduced or eliminated since learners do not have to congregate in one spot for a learning event. "It cuts travel expenses, reduces the time it takes to train people, and eliminates or significantly reduces the need for classroom/instructor infrastructure" [3].

II. About University of Stirling

The University of Stirling (UoS) is ranked number one in Scotland and eighth in the UK in The Times Higher Education 100 under 50 tables, which ranks the world's best 100 universities under 50 years old. Stirling was established by Royal Charter in 1967, the first new university to be established in Scotland for 400 years. Since then, a number of new universities have been founded throughout Scotland and the UK and there has been substantial growth in the development of new universities throughout the world.

According to Professor Gerry McCormac, Principal and Vice-Chancellor, the essence of the University of Stirling is its great people: our graduates, staff and students are helping to shape the world. Founded by Royal Charter in 1967, the University of Stirling was the first genuinely new university in Scotland for over 400 years. We retain our pioneering spirit and a passion for innovation and excellence in all we do.

We aim to be at the forefront of research and learning that helps to improve lives. Working with academic, commercial, public, private and voluntary sector partners, Stirling is one of the UK's leading research universities in the fields of health and wellbeing, the environment and people, culture and society, enterprise and the economy, and sport.

Students are at the heart of what we do and we provide one of the best all round student experiences in the UK.

In learning and teaching, we work with our student community to deliver high quality programmes that

produce intellectually able graduates who are highly sought after by employers. We are ambitious for our students, and our flexible learning opportunities enable them to explore and discover new subjects and interests.

There is a vibrant and growing postgraduate community and we welcome students, researchers and staff from around the world. This gives our research and teaching a global outlook, while remaining relevant to our Scottish culture and economy [4].

III. About Muscat College

Muscat College (MC) was established in 1996 as a private academic Omani institution of higher education. Muscat College is accredited and operates under the supervision of the Ministry of High Education in Oman. Muscat College is affiliated with both the University of Stirling and The Scottish Qualification Authority (SQA) UK.

Muscat College is one of the approved centers for the Scottish Qualifications Authority (SQA) [5].

The researcher is associated with Muscat College for the past ten years and actively involved in the development, implementation and delivery of e-Learning courses. It is more appropriate for the researcher to do the comparative study on Evaluation of e-Learning between Muscat College and affiliated institution, University of Stirling.

Muscat College offers the following programmes in affiliation with University of Stirling.

- B Sc (Hons) in Business Computing
- B A (Hons) in Business Studies
- B A (Hons) in Accountancy and Business Studies
- B A (Hons) in Accountancy and Computing Science

The duration of each programme is of 4 years. The first batch had enrolled in 2007-08 and they have progressed to the fourth year and completed their honours degree in the last year.

Muscat College uses the e-Learning Management Systems, Blackboard and WebCT, of University of Stirling. The students from Oman are enrolled to University of Stirling through Muscat College. They attend classes and appear for examination at Muscat College. However, the syllabus, schedule, materials and examination papers are prepared by University of Stirling. The final examinations are conducted at Muscat College using the same question paper(s) set and used by University of Stirling at the same time of UK (even if the day scheduled for the examination is a holiday in Oman).

The answer papers are evaluated at Muscat College and sent to University of Stirling for verification and

approval from the examination board at the University of Stirling. The results are published and the Degree is awarded by University of Stirling. Muscat College students can even attend classes at University of Stirling. There are modules in the course where tests and/or examinations are conducted online using Succeed at the same time at Muscat College and University of Stirling, UK. The University of Stirling has provided user name to all Muscat College students and academic staff for accessing WebCT and e-mail system. The academic staff needs prior approval from University of Stirling to deliver the modules of honours programme. All the approved academic staff would get administrative rights in the Succeed to upload files, if necessary, of the modules being delivered.

IV. Evaluation of e-Learning

Evaluation is a systematic investigation to determine the merit and worth of set of activities. The root of the word “evaluation” is value. Educational evaluation is “an enquiry which sets out to explore some educational program, system, project or event in order to focus on its worthiness” [6].

There are many reasons to evaluate e-Learning courses, including to determine whether course objectives are being achieved, to justify investments, to make better decisions, and “to buy, license or build particular courses” [7].

The best evaluation studies provide a comprehensive study into the insights of the process and course implementation; all effects, intended and unintended, positive and negative; and underlying values [8].

V. Survey Study Findings

The survey study had mainly 25 questions to evaluate the effectiveness of e-Learning among the first, second, third and fourth year of bachelor (honours) degree students. Total of 158 students were responded to the survey of which a sample of 120 students were selected equally from second, third and fourth year. Majority of the students were female (70 percent) in Muscat college and male students were majority (63 percent) in University of Stirling. Since the gender ratio is even, the gender wise analysis is not done. In the sections below are some of the findings from this survey study.

V.1. Student's Experience of e-Learning

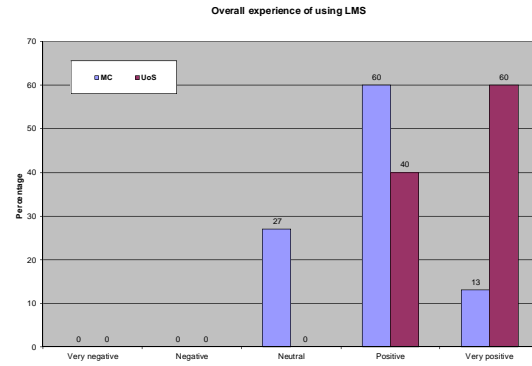


Fig.1. Overall students' experience of using LMS

All the students responded to this survey has agreed that they are currently embraced e-learning or blended learning to a varying degree. In Muscat College, 73 percent of the students have responded to the question to describe the overall experience of using e-learning systems as either very positive or positive and 27 percent as neutral. What is significant is that no students have responded as either negative or very negative. In comparison, University of Stirling students have completely responded as the overall experience of using e-learning systems as either very positive or positive (see Fig. 1).

Although all the Muscat College students have access to Internet at home, the frequency of accessing the e-learning systems is just about 50 percent. In comparison, University of Stirling students access quite frequently. Muscat College needs to take necessary steps to encourage and motivate students to use the e-learning systems (see Fig 2).

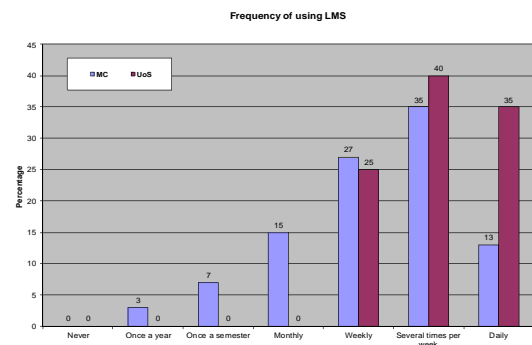


Fig.2. Frequency of using LMS

V.2. Students' Opinion on ICT Services

All the students from both the institutions have either agreed strongly or agreed that ICT services are being provided always. This is very encouraging from both the institutions for giving the ICT services to students

without any difficulty. The students are very much satisfied too (see Fig 3).

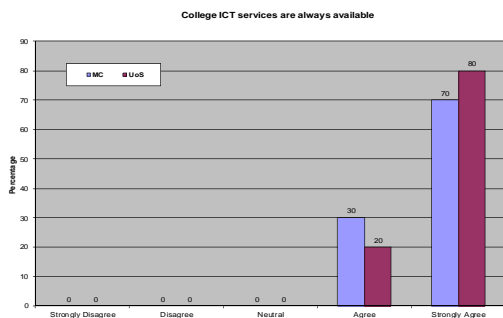


Fig.3. Availability of ICT Services

V.3. Students' Involvement with LMS

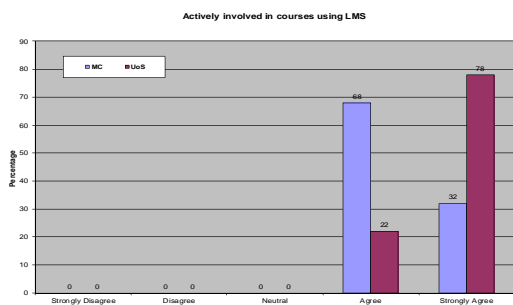


Fig.4. Students' Involvement with Courses Using LMS

All the students from both the institutions have either agreed strongly or agreed that they completely involved with the courses which are using LMS. However, 73 percent of students from University of Stirling have strongly agreed the involvement as against of 22 percent of Muscat College students those who have strongly agreed their improvement (see Fig 4).

V.4. Convenience of Course Activities

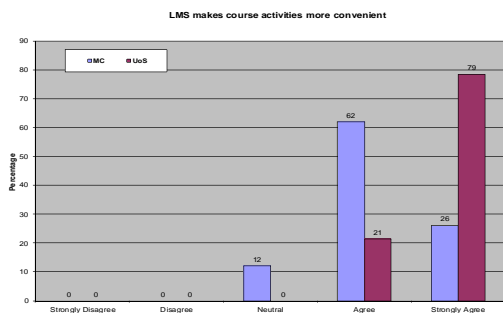


Fig.5. LMS made Course Activities More Convenient

Majority (62 %) of the Muscat College students have agreed only that course activities have become more

convenient by using LMS. However, 12 percent of the students did not feel any additional convenience and 26 percent have strongly agreed for having the convenience. In comparison, 79 percent of University of Stirling students have strongly agreed that course activities have become more convenient by using LMS and the remaining students have agreed the same too (see Fig 5).

As for the fonts and the sizes of the headings, this manuscript in itself constitutes a good example.

V.5. Improvement of Learning Skills by Using LMS

All the students from both the institutions have either agreed strongly or agreed that using LMS has improved their learning skills. However, 72 percent of students from University of Stirling have strongly agreed the improvement in the learning skills as against of 28 percent of Muscat College students those who have strongly agreed their improvement (see Fig 6).

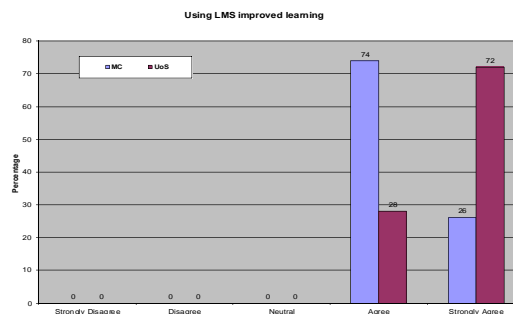


Fig. 6. LMS Improved Learning Skills

V.6. Overall Satisfaction of Using LMS

The data analysis shows that all the students from both the institutions have either agreed strongly or agreed that they are satisfied with the LMS being used. However, 72 percent of students from University of Stirling have strongly agreed the satisfaction with LMS being used as against 26 percent of Muscat College students those who have strongly agreed their satisfaction (see Fig 7).

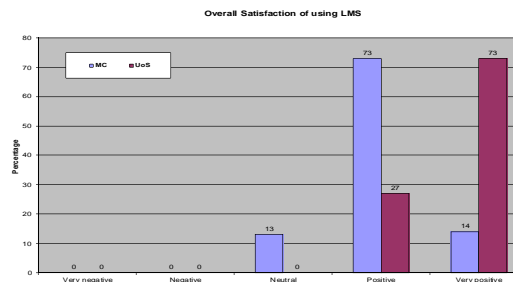


Fig. 7. Overall Satisfaction of Using LMS

VI. Conclusion and Recommendation

The data analysis has given the clear indication that students from University of Stirling are very much satisfied with the LMS being used. In comparison, 87 percent of Muscat College students are satisfied with the LMS being used. The major factor is to be noted that 73 percent of University of Stirling students have strongly agreed being satisfied, whereas only 27 percent of Muscat College students have strongly agreed being satisfied using LMS. It must be noted that both the institutions are using Succeed/Blackboard provided by University of Stirling. Muscat College students use the same courses in LMS as the students of University of Stirling.

Majority of Muscat College students do not access LMS very frequently. This is a matter of concern and needs to be addressed immediately. Once the students start accessing LMS frequently, the other parameters would automatically be improved substantially. Muscat College needs to develop a policy to implement an efficient and systematic training to all the students in the first year, at the time of admission to the courses offered by University of Stirling. This would encourage the students at Muscat College to access the e-Learning Management System and make use of the advantages of e-Learning from the first year itself.

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Author's Profile

Mr. Sarachandran Nair. C is pursuing PhD from JJT University in India. He has received M.Phil degree from Alagappa University. He has more than 24 years of experience and currently working as Senior Lecturer in the department of computing, Muscat College, Sultanate of Oman for the past 12 years.

Mr. Nair is also a recognized teacher of University of Stirling, UK. He has published one paper in IJCSI on e-Learning Management Systems and presented & published four papers in international conferences.

Mr. Nair is member of many professional associations including IEEE and e-Learning Guild. His research areas are e-Learning and Cloud computing.

Dr. Rajendra Patil received PhD from SRTM University, India in 2005. At present, he is the Director of Don Bosco institute of technology in India. He has served as Director / Principal in various Computing Science / Management colleges in India.

Dr. Patil has more than 30 years of experience in the field of teaching, training and development in education sector. He has published more than 50 papers in international and national journals.

Dr. Patil is a member of many professional associations. He has been guiding PhD students for the past six years.