The Case of a Cross-Border Pure Online Program: Crossing boundaries, Engaging minds

Tina Lim Institute of Quality, Research & Innovation Open University Malaysia tina_lim@oum.edu.my

Zoraini Wati Abas Institute of Quality, Research & Innovation Open University Malaysia zoraini@oum.edu.my

Abtar Kaur Faculty of Education and Languages Open University Malaysia abtar@oum.edu.my

Abstract: According to UNESCO (2002), new forms of distance learning based on new information and communication technologies are emerging and this has led to a significant trend towards intensifying globalization. Such forms of learning are a result of new learning needs and new patterns of information access and application. In the case of learning that is mediated solely through the use of such technologies, the content and activities need to be so designed that they are able to adequately compensate face-to-face meetings that have always been considered crucial in blended modes of open and distance learning. This paper seeks to describe and examine learner engagement in a pure online open and distance learning master's program that was offered to students from 12 countries by Open University Malaysia based on feedback obtained via an online survey and personal e-mail.

Globalization of Education

Very much due to its very own definition, open and distance learning (ODL) where teaching and learning takes place free from temporal and spatial constraints, is said to have the potential to generate new pedagogies. In the year 2002, UNESCO stated that new forms of distance learning based on new information and communication technologies (ICTs) were emerging. Seven years down the road, it is certainly evident that new ICTs have made it possible for higher education providers to meet new learning needs, to unravel new patterns of information access and to create new types of interactions. This has contributed significantly towards making learning more flexible in terms of delivery and structure, as well as enabling globalization to take place at a rapid pace (UNESCO, 2002).

Knight (2006) defined globalization as a process that is increasing "the flow of people, culture, ideas, values, knowledge, technology, and economy across borders, resulting in a more interconnected and interdependent world." (p. 18). She identified education as one of the sectors impacted by globalization. According to Smith and Doyle (2002), "a particular feature of globalization is the momentum and power of the change involved" (Para: Risk, technological innovation and globalization). They further cited Hutton and Giddens (2001) in saying that 'It is the interaction of extraordinary technological innovation combined with world-wide reach that gives today's change its particular complexion'. Globalization of education has now taken to new heights with what is commonly known as "cross-border" higher education. So what is cross-border education? According to Knight (2006), it is "the movement of people, knowledge, programs, providers and curriculum across national or regional jurisdictional borders" (p.18).

The higher education scenario has now changed: the only one possibility that previously seemed to be available years back, that is, pursuing one's studies in one's own country, having only the home institution's academics as instructors and locals as fellow students is now a thing of the past. This educational revolution brings about exciting opportunities for higher education providers to cross geographical borders in terms of collaboration when designing educational programs, as strongly stated by the Organization for Economic Co-operation and Development (OECD) in the quotation below:

"The mobility of students, professors, knowledge and even values has been part of higher education for centuries, but it has recently grown at an unprecedented pace. The last two decades have seen a significant growth in the mobility of higher education programs and providers through physical and virtual modes of delivery. This presents many new opportunities among which are increased access to higher education, strategic alliances between countries and regions, as well as the expansion of human resource and institutional capacity" (OECD, 2007; abstract)

One way in which programs move across borders is through distance learning. Moore (1997) highlighted that in distance education, the "distance" is more than a geographical separation of learners and teachers, with the separation of time and space "there is a psychological and communications space to be crossed, a space of potential misunderstanding between the inputs of instructor and those of the learner. It is this psychological and communications space that is the transactional distance" (p. 22). How then do ODL providers ensure the psychological and communications space is "crossed"? Put it simply, how do ODL providers ensure learners are engaged in their learning?

Dzakiria (2004) cited Thurmond (2003) in saying that knowledge development in the learning environment is enhanced when students interact with other learners, the instructor, and the technology resulting in a reciprocal exchange of information. Literature indicates that the types of interaction involving learners that are commonly researched with regards to distance learning are learner-learner, learner-facilitator and learner-content. Active and collaborative learning is considered instrumental in shaping learning communities, so is the ability to apply what has been learnt to real-life situations (Robinson & Hullinger, 2008). In discussing the "perfect mix" of interaction particularly in the context of distance learning, Anderson (2003) suggested that with new information communication technologies that are currently in place, the challenge for instructional designers and teachers to get the mix right has greatly intensified.

Learner Engagement

It is well-recognised that motivation and engagement are key factors related to academic achievement. According to Russel, Ainley and Frydenberg (n.d.), while "engagement describes energy in action", "motivation is about energy and direction; the reasons for behavior, why we do what we do" (p.2). Similarly, Eggen and Kauchak (2004) described motivation is a force that energizes a person and directs his/her behavior toward a certain pre-determined goal. Motivation is time-dependent and the amount of motivation one has for a particular activity is not necessarily a constant; it could fluctuate during any particular space of time. Lieb (1991) listed six factors that motivate adults to learn namely (1) social relationships, (2) external expectations, (3) social welfare, (4) personal advancement, (5) escape/simulation, and (6) cognitive interest. Eggen and Kauchak (2004) added that motivation may also be caused by novelty or curiosity. Other reasons why adults continue their studies include upgrading their skills to meet workplace needs and for job advancement.

Literature indicates that engagement may be looked upon from the cognitive perspective as defined by Beder (2006), that is, "mental effort focused on instructional tasks" (p.1). It also suggests that other than cognitive engagement, there are other forms of engagement such as behavioral (involvement in learning tasks, effort and participation in activities) and emotional engagement (e.g. identification with educational institution and affective reactions such as interest, happiness) (Russel, Ainley & Frydenberg, n.d.). Whichever the case, student engagement is now considered the new benchmark in distance higher education as it offers valuable indicators of quality online learning (Robinson & Hullinger, 2008). In comparing distance learning learners with campus-based learners, findings from self-reported surveys indicated that the "Engagement of distance education learners compared favorably to that of students taking classes on campus" and "While distance education students are comparable to other students in

terms of academic activities, they were much less likely to participate in active and collaborative learning activities" (IUB, 2006, p.15).

According to Jones, Valdez, Nowaskowski and Rasmussen (1994), in order for students to be engaged, the teacher facilitates learning by giving students opportunities for collaboration in rich environments. Students build knowledge through challenging, authentic and multi-disciplinary tasks, collaboration, shared understandings and creative application of what is learnt. Such communities are said to value team work, diversity and multiple perspectives as well as possess team skills. In addition to opportunities for collaboration, suitable opportunities for dialogue between facilitator and learner based on appropriately structure materials have to be provided especially if it involves distance learning programs where face-to-face interaction is minimal (Moore, 1997)

Russel, Ainley and Frydenberg (n.d.) emphasized that "engagement in learning is both an end in itself and a means to an end" (p.2). As such if one wants to know whether learners are/were engaged, one could either examine the process and/or the product or outcomes. The importance of investigating process besides measuring outcomes is increasingly being hailed as the new standard in program evaluation as it gives a more complete, accurate and meaningful picture of the quality of educational practices.

In traditional classrooms, teachers can observe learners' overt behavior and interaction in the classroom as well as through their work. Similarly, in online learning environments, engagement is inferred through interactions in forums and/or e-mails as well as through the assignments handed in. However, what is different between the two modes of learning is that in the face-to-face mode, it is pretty much evident and immediately clear that a learner is not engaged if s/he is off-task during a lesson whereas in online environments where learners are removed in space and time, non-engagement in the process stage may or may not be reflected in the outcome stage. A learner who follow discussions but does not give any input him/herself may not be interacting with other learners or even with the facilitator but could be interacting with the content at his/her own time. Such self-paced learning opportunities are the very essence of flexible learning that is afforded in open and distance learning.

Robinson and Hullinger (2008) suggested that in addition to quantitative measures, learner engagement may also be measured qualitatively. Various methods of collecting data include using self-report questionnaires, interviews, and rating scales. A well-established questionnaire widely used in the United States of America is the National Survey of Student Engagement (NSSE). The five dimensions of student engagement measured are:

- (1) The level of academic challenge,
- (2) Student/faculty interaction,
- (3) Active and collaborative learning,
- (4) Enriching educational experiences, and
- (5) Supportive campus environment (IUB, 2006).

The level of academic challenge includes effort and time required to master the content, pacing of course material as well as challenge or expectation to do well in the studies. Meanwhile, student/faculty interaction looks into access to contact with the faculty, quality of faculty feedback, encouragement/commitment/interest on the parts of the student and the faculty, and clarity/organization of course material. Active and collaborative learning measures aspects such as the extent of active participation in learning tasks and working together on projects or assignments while enriching educational experiences pertain to the diversity of viewpoints, higher order cognitive skills, enriching personal/professional experiences such as developing leadership skills, service learning and the effective use of appropriate technology. As for supportive campus environment, academic and social support in addition to relationships with teachers and other students are looked into.

New Information, Communication Technologies and ODL

Moore (1997) emphasized that in order "to deliver teaching programmes that are maximally effective in overcoming transactional distance it is necessary to select the appropriate medium" (p.26). So what are the new ICTs that ODL providers can leverage on in reducing the transactional distance that exists in distance education courses? This includes Wikis, blogs, Skype, Twitter and Facebook. Usually referred to as Web 2.0 tools, these tools not only allow the support of learning activities and online interaction but more importantly, enable instructional designers to tap onto the full potential of constructivist learning environments. For example, such emerging technologies provide

opportunities to increase learner engagement, promote authentic learning as well as present opportunities to allow learner control over content and interaction.

In addition, Web 2.0 offers great potential in enabling collaborative learning communities, an expectedly powerful learning situation for adult distance learners. These new ICTs are ideal for education providers who place importance to making the learning experience compelling and powerful (Wilson, Parrish, & Veletsianos, 2008). Further, according to Richardson (2008), Web 2.0 enables greater emphasis to be placed on autonomy, interactivity and creativity among teachers and learners. In his attempt to explain why Web 2.0 has had such a tremendous impact on building the 3Cs in learning, that is, collaboration, contribution and community, Anderson (2007) singled out the following six key ideas of Web 2.0:

- (1) Individual production and user generated content,
- (2) Harness the power of the crowd,
- (3) Data on an epic scale,
- (4) Architecture of participation,
- (5) Network effects, and
- (6) Openness.

Objective of Study

The objective of this study was to describe and examine how learners in OUM's pioneer pure online cross-border program were engaged in learning based on the five dimensions outlined in the NSSE.

Research Question

How were the learners in OUM's pioneer pure online cross-border program engaged in learning?

Methodology

The Context

The course

The Master of Instructional Design and Technology (MIDT) is the first and only pure online program being offered at the Open University Malaysia (OUM). It is a 40 credit programme, planned to be completed with 18 months of study spread over 5 semesters. The learners have the benefit of expert facilitators from many parts of the world such as the United States, Canada, Germany, Holland, Indonesia, Australia and Malaysia. Learners and facilitators are connected to each other using the Open University Malaysia's Learning management System (LMS) and other Web 2.0 systems such as Blogs and Wikis. Synchronous online tools like Skype are also used regularly to meet students' learning needs. Assessment is conducted using various methods and ongoing assessment is prominent. Assignments, critical reviews, design & development of instructional resources, online collaborative discussions and debates form part of the ongoing assessment. In a number of the courses, a final examination which contributes to about 30% of the grade is also administered.

The participants

Of the 21 learners who registered, nine are females and 12 are males. The learners have different prior experiences; a majority is from universities or schools either in teaching and learning, in administration or in instructional design. Several of the learners are from non-academic backgrounds; there is an accountant, a navy commander and a physiotherapist. Of the total, seven learners are from Malaysia, three from Indonesia, two from Bangladesh, one each from Papua New Guinea, Pakistan, India, Cameroon, Swaziland, Bahamas, Jamaica, Trinidad & Tobago and Bahrain. Their age ranged from mid-twenties to mid-fifties. Majority possessed a basic degree and at least three had a post-graduate qualification in other fields. Approximately an equal number of them had previous online teaching-learning experience as those who did not have.

Data collection and analysis

Feedback was obtained from 18 active learners using an online survey as well as through personal communication. The online survey was made available to all learners a week after the examination for the first semester. For the purpose of this article, open-ended responses related to the following were used:

- (1) Learners' perception of the challenge they faced in pursuing the program (open-ended item); and
- (2) Their learning experience in the three courses (open-ended item).

From the learners' responses using the online survey as well as feedback obtained from six learners via e-mail, evidences of learner engagement and the lack of it, were examined and matched with dimensions stated in the NSSE.

Limitations of the Study

This study is a based solely on feedback given by learners on their learning experience for the first semester courses only. There was not attempt in triangulating data by examining the views of the facilitators nor the learning outcomes involved with regards to learner engagement.

Findings

Why Learners Chose to Enroll in the Program

Learners were very much motivated to participate in the program. Five learners cited work-related reasons for enrolling in the program as follows:

"Instructional design technology (IDT) is in line with my working now on the open and distance learning. In (my country) IDT expert is still limited. So this could be the opportunities for future on career (*sic*)";

"To further my knowledge and skills in IDT as to improve my present job/roles as ID/Trainer/Training Evaluation";

"I am in training and I would like to fully improve and better design our training and development program";

"Need knowledge and skills, in ID and technology as I work for a distance education institution in instructional materials design and development ..."; and

"I choose this course to acquire IDT skills which are highly needed in my institution. Besides I need these skills for my future career. I am intending to make a career in the field of instructional design and technology".

One reason given that was more altruistic was that the learner wanted to "contribute to the education sector" of his/her country. Another similar response was s/he wanted to learn and experience appropriate technologies that can reach out to and educate both urban and rural communities. Yet another learner was enticed by the fact that the program was fully online and that "the faculty members and students are global", and that s/he was excited by the courses offered.

Level of Academic Challenge

Qualitative responses obtained indicate an optimal level of academic engagement was present. It is evident that the challenge provided had been positive to these learners as it had further energized the learners in their academic quest. The responses are as follows:

"I am sufficiently challenged because the course has pulled so much out of me and drove me to want to pursue more information on subject matters"; and

"I had some background knowledge in IDT and felt it was going to be an easy work through with the MIDT program. However I am impressed with the challenge because I am learning a lot from this program. I am

convinced that by the time I complete this program, I will sure be a real professional. I like the challenge because it makes me work harder".

Some responses indicated some learners may have found the program more challenging than expected at some point or other. This is seen from the following comments:

"The course does test me. But (it) is not to such an extent that I cannot cope. Planning, patience and perseverance helped me";

"The courses in the program are all new to me in terms of knowledge and work experience. It is very challenging and needs extra effort to keep up. However, at the end, it is very satisfying";

"I was at one point overwhelmed by the wealth of information. It was really hard for me to organize the information"; and

"The course is a "little' too intensive for people who lead a busy life".

Learner/Facilitator Interaction

Learners for this program communicated to each other via ICTs such as e-mail, online asynchronous discussions in the LMS and in one course, Skype. There were no face-to-face meetings. However, interaction that was mediated through ICTs seemed to work well. From the learners' comments, it appeared that there was quality in facilitators' feedback across the three courses which was greatly appreciated by the learners. Some learners were also inspired to learn more because of facilitators who showed great commitment and competence in stimulating learning. Excerpts from some learners' comments area as follows:

"The feedback was very supportive and constructive";

"The tasks were very meaningful yet simply designed... It is good that they were given to us in a variety of ways. The discussions were very thorough and peer feedback amazing";

"Amazing experience. The facilitator (Dr. A) was pervasive, ubiquitous and omnipresent. I truly felt that he was next to me smiling, concentrating hard and frowning at what we posted and that is the ultimate compliment. It was like first grade class again where we worked hard to please him and felt down when we could not. Whether it was a simple task or a complex task, it sounded very easy when we saw it through his eyes"; and

Some indications on the lack of feedback is however also present. It appears some learners were not satisfied with feedback to assignments and although this course was at a master's level, at least one learner felt the need for constant feedback from none other than the facilitators themselves. This is inferred from the following comments:

"In two of the courses it (feedback) was not always given/provided and that left some queries unanswered. However, when it was provided it was superb!";

"... I missed the insightful and informed opinions of (Dr. B) at quite some instances"; and

"The only complaint I have is the delay in giving feedback to assignment submitted by students. This has made most students not to keep track with (*sic*) their performance".

Active and Collaborative Learning

Active participation and collaboration among fellow learners could be found in the forum discussions as well as the final assignment which required learners to use and link all three courses together into one task. Although learners were separated geographically and were from different world time zones, discussions were intense throughout the first semester and learners worked well together in giving and getting help in learning from each other. The following excerpts provide evidence of such a practice:

"I liked the forum discussions and interactions because it created a platform and environment of collaborative work which acted as a motivator and provided so much structure to knowledge and learning";

"(Some course facilitators) decentralized some forums to some colleagues who had some experience in the subject matter and this caused many more students to feel very free in contributing which was a very good idea"; and

"The discussions among the members was stupendous (*sic*). So much discussed among the peers... mostly the discussions came in thick and fast and took us on to the next level".

Enriching Educational Experiences

The learners' learning opportunities were augmented in many ways. The most eminent aspects were the integration and application of knowledge and skills learnt and the effective use of appropriate ICTs in communicating content, as may be gathered from the comments below:

"(The) course equipped me with necessary approaches and tools to be effective in my job";

"Revised my research skills and apply them to the design of educational technology. Excited to discover that traditional research methods and designs are cross transferrable to educational technology, with some benefits and limitations";

"The constructivist activities challenge me to demonstrate internalization of content through applying knowledge to solve authentic work based challenges";

"Course quite enlightening through compelling me to apply theory to my practice as an ID practitioner (*sic*)"; and

"... this course too was very interesting especially with learning tools like YouTube. Watching a video about a course is more motivating that reading through a chunk of materials".

"(The blog) provides access to articles, video presentations about various learning theories that guide instruction in an accessible & interesting manner";

"This blog has everything that students of the MIDT program need to assist them with the course content. It is beautifully put together and user friendly"; and

"The blog provided other integrated links that guided our navigation online as we browse through the numerous resources thus saving time".

The novelty of this pioneer program which saw active participation of learners from 12 countries also provided learners a unique learning experience. The excitement and pure amazement among learners that such a program could be offered, giving cross-border education a new frontier and meaning was also present. The following remarks offer a snippet of the enriching educational experience created:

"I was very excited every time a new topic was introduced. It was a whole new world of knowledge and experience to me. I enjoyed every second of it, even though I was having every tough time initially to understand what the subjects were all about and to allocate time for study. My overall feeling is: Every time I logon to the LMS, it is like entering a global classroom";

"Believe or not, on last two days (of the first semester), all of us from 13 countries in the same moment, together work with computer with the same "web", the same project, same keep silent (*sic*) for 1 hour 30 minutes" (commenting on the final examinations that was held online at the same time across the world, albeit in different time zones).

Supportive Campus Environment

In this program, availability of academic support and close relationships were developed in the process of learning. This was seen as a helpful factor that contributed towards learner engagement. Related comments are as follows:

"There was a mix of different methods and facilitators and in the proper order too from what we know to what we needed to know... It was a wonderful experience. The way (Dr. A) held everything together was wonderful";

"The facilitator give his best support with professional approach (*sic*), so I can follow the course step by step";

"Dr. C provided the much needed support to the students. This was very helpful";

"Superb! (Dr. A) had been very supportive and careful of everybody's needs in terms of task design and detailed, thorough and prompt feedback. The flexibility in assignment submission and his trust in us that we will do them is amazing. I really appreciate the way he chunked the tasks and scaffolded them! A rewarding learning experience indeed";

"I couldn't think before that an online course could create such a powerful bondage between facilitators and learners. (The facilitators) were so amiable, supportive, encouraging and warm to all of us... And I just cannot forget my fellow learners who instantly stood by us in any problem. It seems we have formed a family with all our instructors and friends";

"The peer support has been tremendous"; and

"Thanks must go to all the hard working technical staff of Dr. B and the supporting professors of whom I have grown to know in a very special and pleasant way".

Conclusions

Clearly, as ICT tools advance at an amazing speed with improved capacities and functions in reduced sizes, so too will new models of cross-border educational programs develop with greater capacities and functions, reducing transactional distances, in terms of geographical, time, psychological and communication spaces. A whole new meaning of cross-border higher education has emerged: learners and facilitators from different countries are able to cross geographical borders right where they are and attend classes in cyberspace where time and space do not constrain teaching and learning opportunities. Against the backdrop of a virtual classroom, OUM's MIDT learners interacted with other learners and facilitators as though they were right next to each other. Technological advances have certainly made possible a unique kind of learner engagement in the pioneer MIDT program currently offered by OUM. The rich learning environment enabled learners to be engaged in learning that was interesting, challenging, active, interactive, collaborative, purposeful and meaningful. It does appear that there is tremendous power and potential in pure online cross-border educational programs. The access that learners across the whole world have to a wonderful mix of expertise from facilitators of different countries and the opportunity to learn together with learners from other countries without so much as even meeting them face-to-face is no more a dream, it is now a reality. Surely this is the way forward for the promotion for greater access, equity and excellence in education.

Suggestions for Further Research

Cross-border pure online higher educational programs could be examined in terms of instructional design and delivery models used, interaction processes that occur and its effect on participants from various cultural and educational backgrounds. Such programs could also be investigated in terms of their impact on learners' use of knowledge and skills obtained, at their work-place upon successful completion of their studies.

References

- Anderson, P. (2007). What is Web 2.0? Ideas, technologies and implications for education. *JISC Technology and Standards Watch*. Retrieved September 22, 2009, from www.jisc.ac.uk/media/documents/techwatch/tsw0701bword.doc
- Anderson, T. (2003). Getting the mix right again: An updated and theoretical rationale for interaction. *The International Review of Research in Open and Distance Learning*, 4 (2). Retrieved October 14, 2009, from http://www.irrodl.org/index.php/irrodl/article/view/149/230
- Beder, H. (2006). Shaping and sustaining learner engagement in individualized group instruction classrooms. NCSALL Focus on Basics, 8 (B), Retrieved October 10, 2009, from http://ncsall.net/?id=1106
- Dzakiria, H. (2004). Technology does not always teach distance learners, but effective distance teachers do ... *Malaysian Online Journal of Instructional Technology*, 1 (1). Retrieved June 10, 2009, from http://pppjj.usm.my/mojit/articles/html/Hisham.htm

Eggen, P., & Kauchak, D. (2004). *Educational Psychology: Classroom Connections*. (6th ed.). Upper Saddle River, NJ: Pearson.

- Indiana University Bloomington. (2006). NSSE 2006 Annual Report: Engaged learning: Fostering Success for all students. Bloomington, IN: Author. Retrieved September 15, 2009, from http://nsse.iub.edu/NSSE_2006_Annual_Report/index.cfm
- Jones, B., Valdez, G., Nowakowski, J., & Rasmussen, C. (1994). Designing Learning and Technology for Educational Reform. Oak Brook, IL: North Central Regional Educational Laboratory. Retrieved August 20, 2009, from http://www.ncrel.org/sdrs/engaged.htm
- Knight, J. (2006). Higher Education Crossing Borders: A Guide to the Implications of the General Agreement on Trade in Services (GATS) for Cross-border Education. France: COL/UNESCO. Retrieved August 14, 2009, from unesdoc.unesco.org/images/0014/001473/147363E.pdf
- Lieb, S. (1991). *Principles of adult learning*. Retrieved August 21, 2009, from http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/adults-2.htm
- Organization for Economic Co-operation and Development (OECD) (2007). Cross-border Tertiary Education: A Way towards Capacity Development. Retrieved August 17, 2009, from http://www.oecd.org/document/20/0,3343,en_2649_35845581_39169364_1_1_1_00.html
- Rhode, J. F. (2009). Interaction Equivalency in Self-Paced Online Learning Environments: An Exploration of Learner Preferences. *International Review of Research in Open and Distance Learning*, 10 (1), Retrieved September 21, 2009, from www.irrodl.org/index.php/irrodl/article/view/603/1179
- Richardson, T. (2008). How Web 2.0 has changed the face of education. *IT Adviser*, 55. Retrieved August 21, 2009, from http://www.nccmembership.co.uk/pooled/articles/BF_WEBART/view.asp?Q=BF_WEBART_305924
- Robinson, C. C., & Hullinger, H. (2008). New benchmarks in higher education: Student engagement in online learning. *Journal of Education for Business*, November/December 2008, pp. 101-108.
- Russel, V. J., Ainley, M., & Frydenberg, E. (n.d.). Schooling issues digest: Student motivation and engagement. Retrieved September 21, 2009, from http://www.dest.gov.au/sectors/school_education/publications_ resources/schooling_issues_digest/schooling_issues_digest_motivation_engagement.htm
- Smith, M. K., & Doyle, M. (2002). Globalization. *The Encyclopedia of Informal Education*. Retrieved September 21, 2009, from www.infed.org/biblio/globalization.htm.

- Thurmond, V. A. (2003). *Examination of interaction variables as predictors of students' satisfaction and willingness to enroll in future web-based courses.* Doctoral dissertation. University of Kansas Medical Centre, Kansas City, KS.
- UNESCO. (2002). Open and distance learning: Trends, policy and strategies considerations. France: Author
- Wilson, B., Parrish, P., & Veletsianos, G. (2008). Raising the bar for instructional outcomes: Towards transformative learning experiences. *Educational Technology*, *48*(3), 39-44.