

Evaluation of an Asynchronous Online Program

Henry L. Smith and Badrul H. Khan

Users of online learning face many challenges. Some of those challenges lie in dealing with the implementations of online courseware. Providers of online education also face issues inherent in the delivery of distributed e-learning. Primary in this effort is the need to foster the support of all stakeholder groups. The major stakeholder group in online education consists of the students. Students taking advantage of the benefits of online learning are typically working adults who are really helped by not having to attend classes on a brick and mortar campus. To be truly effective, institutions doing online education must seek and pay attention to student reactions to their efforts.

Using a program evaluation survey based upon a comprehensive *e-learning model* by Khan (2001), we have tried to ascertain the attitudes of online education students in a particular master's program, about some of the issues they encounter in online learning implementations. The students in this program are all working adults with undergraduate degrees. They are, however, for the most part, novices at online education and reluctant to comment on the utility of factors not currently present in their program. On the other hand, they are quite capable of evaluating the factors that they have encountered, expressing their level of satisfaction with those factors, and estimating how those factors have impacted their online learning experience. The discussion, then, relates what we are hearing today from these students.

The list of questions in the survey about the factors that influence the successfulness and efficacy of online learning is not exhaustive. We realize there are potentially thousands of factors that affect online learning. However, in line with Khan's *E-Learning Framework*, we have focused on eight dimensions of online learning (institutional, management, technological, pedagogical, ethical, interface design, resource support and evaluation) that have significance for all stakeholders and major impact for the primary stakeholders, the students. The questions in the survey are worded so as to address those aspects in the eight dimensions into which students have visibility and are therefore able to evaluate.

The following discussion reports the overall results for the survey and looks at representative questions about factors from each dimension in the survey and student satisfaction and experiential impact ratings of those factors. In a way, the responses give us insight into

student perceptions of the environment in which online teaching and learning are accomplished and some idea of what learners think about e-learning as a methodology.

Satisfaction rating scores for each item can range from a maximum of +2 to a low of -2, with 0 in the middle. The 0 rating is equivalent to a neutral rating stance between maximum and minimum satisfaction. Experiential impact rating scores used the same scale to represent stances between strongly enhanced to strongly degraded. Overall, students indicated they were most satisfied with factors in the *Ethical* Dimension, although satisfaction in this dimension showed a relatively lower correlation with experiential impact, and least satisfied with factors in the *Resource Support* Dimension. Expectedly, the *Technological* Dimension contained the greatest number of factors rated as high in both satisfaction and experience impact.

In the *Institutional* Dimension, students indicated they were most satisfied with the factor defined as the institution's efforts at informing program participants of the prerequisite skills and resources needed to engage in asynchronous education (rating 1.2), and least satisfied with the factor involving the information they received about the preparation of instructors for teaching in distance education environments (rating 0.1).

For the *Management* Dimension, students were most satisfied with the factor concerning the maintenance of the currency of the program's software (rating 1.2) and least satisfied with the factor involving the program's monitoring of students to ensure their comfort in using the requisite technologies (rating 0.2).

In the *Ethical* Dimension, students indicated they were most satisfied with the factor involving the program's fostering of mutual respect, tolerance, and trust among distance education students and faculty (rating 1.2) and least satisfied with the factor concerning accommodations for age-related differences in the student population (rating 0.5).

For the *Technological* Dimension, students were most satisfied with the factor concerning the quality of the computer applications used for content presentation (rating 1.3), and least satisfied with the factor involving the information they received about the preparation of instructors for teaching in distance education environments (rating 0.1).

With respect to the *Interface Design* Dimension, students indicated they were most satisfied with the factor defined as the ability for students to leave or broadcast messages for the entire class, cohort, group or program (rating 1.1) and least satisfied with the factor involving the information provided about the program's distance

education interface mechanisms and how to use them (rating 0.4).

In the *Pedagogical* Dimension, students showed most satisfaction with the factor involving the comprehensiveness/completeness of the distance learning content (rating 1.3) and least satisfied with the factor defined as the promotion and enabling of collaboration with external personnel and resources (speakers, guest lecturers, web sites, etc.) (rating 0.1).

In the *Resource Support* Dimension, students were most satisfied with the factor associated with the program's provision of technical troubleshooting expert support by specialized staff or help line (rating 0.9) and least satisfied with the factors involving the provision of easily accessible tutors or teaching assistants who are trained to assist distance education students (rating -0.4) and the provision of archives of previous students' discussion forum transcripts on topical issues (rating -0.4).

Finally, with respect to the *Evaluation* Dimension, students indicated they were most satisfied with the factor involving the ability for student feedback to the institution about the quality, benefits, advantages, and disadvantages of the distance education program (rating 0.9) and least satisfied with the factor involving the accessibility of program evaluation results to students (rating -0.5).

Overall, what we hear is that factors employed in each dimension did less than what students' would have liked to enhance the learning experience in the program, with only a few exceptions. Several factors in different dimensions, taken together, strongly suggest that more attention should be accorded the ensuring of student comfort and ability with the technologies and technological components being used in an online program, and that more focus is needed on the online educative environment and process relative to that expended on content.

Reference and Useful Links

Khan, B. H. (2001). A framework for Web-based learning. In B. H. Khan (Ed.), *Web-based training*. (pp. 75-98). Englewood Cliffs, NJ: Educational Technology Publications.
<http://BadrulKhan.com/framework>

Building Effective Blended Learning Programs.
<http://BadrulKhan.com/framework/blended-learning.pdf>

100 Pounds of Potatoes in a 25-Pound Sack: Stress, Frustration, and Learning in the Virtual Classroom
<http://www.uwsa.edu/ttt/articles/mello.htm>

How's the E-learning Baby? Factors Leading to Success or Failure of an Educational Technology Innovation.

http://BooksToRead.com/etp/elearning_failure_study.doc

About the Authors

Henry L. Smith is an independent consultant in education and training with over 20 years experience with Lockheed Martin Corporation, and an aviation training professional of more than 30 years. He taught online courses in educational leadership for Pepperdine University and classroom courses in technology integration for pre-service teachers at California State University San Jose. He received a masters degree in Instructional Technology, and recently completed his doctorate in Educational Technology at Pepperdine University. This article is based on Dr. Smith's dissertation research. Email: hank.l.smith@sbcglobal.net

Badrul H. Khan is an international speaker, author, educator and consultant in the field of e-learning and educational technology. Dr. Khan authored the following books: *Web-Based Instruction* (1997), *Web-Based Training* (2001), *E-Learning Strategies* (2004), *E-Learning QUICK Checklist* (2005), *Managing E-Learning* (2005), and *Flexible Learning* (in press). Dr. Khan's e-learning books are translated into several languages. A sought-after keynote speaker on e-learning, Khan is past President of the International Division of the Association for Educational and Communication Technology (AECT). He served as a consultant/advisor to distance education related projects at the World Bank, US Department of Education, US Department of Defense, Ministry of Education in several countries, and academic institutions and corporations in the USA and abroad. Dr. Khan is Associate Professor of Educational Technology Leadership program at the George Washington University. He is founder of **BooksToRead.com**, a recommended readings site on the Internet. His Website is <http://www.BadrulKhan.com/khan>.