Preparation and Development of the E-learning Courses

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ABSTRACT:

E-learning is an inclusive term that describes educational technology that electronically or technologically supports learning and teaching. Bernard Luskin, a pioneer of e-learning, advocates that the "e" should be interpreted to mean "exciting, energetic, enthusiastic, emotional, extended, excellent, and educational" in addition to "electronic." This broad interpretation focuses on new applications and developments, and also brings learning and media psychology into consideration. Parks suggested that the "e" should refer to "everything, everyone, engaging, easy".

E-learning relies on learning experiences facilitated by experienced teachers. Because learners have a lot of styles, online teachers should design activities that meet their needs of learning in order to provide satisfactory experiences for each learner.

The success of E-learning relies on many factors, one of them being the quality of the design of the learning system. In order to achieve its objectives and goals, electronic learning needs an accurate design process.

In order to develop the e-learning course, we should take into account the following points:

One is to provide further opportunity to discuss the course itself by the learners through the study materials and activities by sharing their reflections about online learning, this will lead to create a richer experience.

Another possibility is to provide opportunities for interested course 'graduates' to act as tutors for subsequent groups, allowing them to experience the course from a tutor's perspective.

Thus, there is a need to reexamine our understanding of the e-learning concept in order to fully exploit its advantages and to avoid its disadvantages.

KEYWORDS: Preparation, development, information technology and Implication strategies.

OBJECTIVE OF THIS PAPER:

The objective of this paper is to provide detailed guidance on designing and developing an e-learning course for trainers and instructional designers who are new to e-learning design.

INTRODUCTION:

What makes a learner successful in an online environment? What creates barriers or challenges? Answers to these questions, among others, gain increasing importance as Internet technologies become more readily available and accessible, in formal and informal contexts (Hofmann, 2002).

By the year 1997, there were more than 762 institutions in the United States alone that offered courses at a distance (Gubernick and Ebeling, 1997, as cited in Cereijo, Young, & Wilhelm, 1999). The Making the Virtual Classroom a Reality (MVCR) online program at the University of Illinois alone had admitted over 1000 individuals from various states and foreign countries by December 2002 (Santovec, 2003). Some of the top institutions in the United States (e.g., MIT, Indiana University, Pennsylvania State University) are offering entire degree programs online, ranging from business to education, criminal justice to nursing.

In addition to programs and courses, most universities now require access to basic course information online (Leonard & Guha, 2001). This includes information such as the syllabus, resource lists, and office hours for the instructor. At University of California at Los Angeles (UCLA), for example, all arts and science courses are required to have course Web sites (Noble, 1998). Even when it is not required, educators are increasingly developing an online presence for their courses via the Internet (Brown, Kirkpatrick, & Wrisley, 2003).
LITERATURE REVIEW:

1-The Impact of E-Learning in Medical Education:
Ruiz, Jorge G. MD; Mintzer, Michael J. MD; Leipzig, Rosanne M. MD, PhD

Author Information:

2.1 Dr. Ruiz is assistant professor of clinical medicine, Division of Gerontology and Geriatric Medicine,
University of Miami Miller School of Medicine, Miami, Florida; associate director for education/evaluation,
Geriatric Research, Education, and Clinical Center, VA Medical Center, Miami, Florida; and senior
investigator, Stein Gerontological Institute, Miami, Florida.

2.2 Dr. Mintzer is associate professor of clinical medicine, Division of Gerontology and Geriatric Medicine,
University of Miami Miller School of Medicine, Miami, Florida; director, Community Academic
Partnerships, and investigator, Geriatric Research, Education, and Clinical Center, VA Medical Center,
Miami, Florida; and senior investigator, Stein Gerontological Institute, Miami, Florida.

2.3 Dr. Leipzig is professor, Department of Geriatrics and Adult Development; and vice chair for education,
Brookdale Department of Geriatrics and Adult Development, Mount Sinai School of Medicine, New York,
New York.

2.4 The authors provide an introduction to e-learning and its role in medical education by outlining key terms,
the components of e-learning, the evidence for its effectiveness, faculty development needs for
implementation, evaluation strategies for e-learning and its technology, and how e-learning might be
considered evidence of academic scholarship.

2-Successful implementation of e-Learning: Pedagogical considerations:

- Traxmedia Sdn Berhad, 17-1, Jalan Mewah 2/2B, Regalia Business Center, 47500 Subang Mewah, Petaling
  Jaya, Selangor, Malaysia 20 February 2002
Abstract:
Many institutions of Higher Education and Corporate Training Institutes are resorting to e-Learning as a means of solving authentic learning and performance problems, while other institutions are hopping onto the bandwagon simply because they do not want to be left behind. Success is crucial because an unsuccessful effort to implement e-Learning will be clearly reflected in terms of the return of investment. One of the most crucial prerequisites for successful implementation of e-Learning is the need for careful consideration of the underlying pedagogy, or how learning takes place online. In practice, however, this is often the most neglected aspect in any effort to implement e-Learning. The purpose of this paper is to identify the pedagogical principles underlying the teaching and learning activities that constitute effective e-Learning. An analysis and synthesis of the principles and ideas by the practicing e-Learning company employing the author will also be presented, in the perspective of deploying an effective Learning Management Systems (LMS).

3-E-learning developments and experiences:

Author(s):
Shirley Alexander (Shirley Alexander is a Professor and Director at the Institute for Interactive Media and Learning, University of Technology, Sydney.)

Abstract:
The focus of much e-learning activity is upon the development of courses and their resources. Successful e-learning takes place within a complex system involving the student experience of learning, teachers’ strategies, teachers’ planning and thinking, and the teaching/learning context. Staff development for e-learning focuses around the level of technological delivery strategies when other issues such as the teachers’ conception of learning has a major influence on the planning of courses, development of teaching strategies and what students learn. This article proposes a more comprehensive framework for the design, development and implementation of e-learning systems in higher education.

4-The influence of system characteristics on e-learning use:

Keenan A. Pituch\textsuperscript{a,1}, Yao-kuei Lee\textsuperscript{b}
\textsuperscript{a} Department of Educational Psychology, The University of Texas at Austin, 1 University Station D5800, TX 78712-0383, USA
\textsuperscript{b} Department of Marketing and Distribution Management, Tajen Institute of Technology, Pingtung 907, Taiwan, ROC

Abstract:
The benefits of an e-learning system will not be maximized unless learners use the system. This study proposed and tested alternative models that seek to explain student intention to use an e-learning system when the system is used as a supplementary learning tool within a traditional class or a stand-alone distance education method. The models integrated determinants from the well-established technology acceptance model as well as system and participant characteristics cited in the research literature. Following a demonstration and use phase of the e-learning system, data were collected from 259 college students. Structural equation modeling provided better support for a model that hypothesized stronger effects of system characteristics on e-learning system use. Implications for both researchers and practitioners are discussed.

5-Improving online learning: Student perceptions of useful and challenging characteristics

Liyan Song, Ernise S. Singleton, Janette R. Hill, Myung Hwa Koh
University of Georgia, 604 Aderhold Hall, Athens, GA 30602, USA

Abstract:
Online courses and programs continue to grow in higher education settings. Students are increasingly demanding online access, and universities and colleges are working to meet the demands. Yet many questions remain re: the
viability and veracity of online learning, particularly from the learner perspective. The purpose of this study was to gain insights into learners’ perceptions of online learning. Seventy-six (76) graduate students were surveyed to identify helpful components and perceived challenges based on their online learning experiences. Results of the study indicated that most learners agreed that course design, learner motivation, time management, and comfortableness with online technologies impact the success of an online learning experience. Participants indicated that technical problems, a perceived lack of sense of community, time constraints, and the difficulty in understanding the objectives of the online courses as challenges. Suggestions for addressing the challenges are provided.

**Discussion:**

From the previous studies, it is evident that the benefits of an e-learning system will not be maximized unless learners use the system.

By reviewing the above studies, the researcher can deduce the following:

Successful e-learning takes place within a complex system involving the student experience of learning, teachers’ strategies, teachers’ planning and thinking, and the teaching/learning context. Staff development for e-learning focuses around the level of technological delivery strategies when other issues such as the teachers’ conception of learning has a major influence on the planning of courses, development of teaching strategies and what students learn.

**PREPARATION OF E-LEARNING COURSE:**

The preparation of e-learning courses requires understandings in education, multimedia content, resource publication, and electronic technologies.

**E-Learning Course Guide: Top 10 Tips for Creating Better eLearning Courses:**

No doubt that E-learning is more popular today than ever before. Here are the top 10 tips for creating awesome e-Learning courses that are effective, engaging, and immersive.

1. **Have a Clearly Defined e-learning Course Structure:**
   - Before you even begin the actual e-learning designing process, you need to identify the e-learning course format, the Instructional Design Model that you are going to use, the type(s) of eLearning interaction(s), and last, you have to choose the right learning technology.

2. **Create High Quality, Relevant, Effective, and Measurable e-learning Course Content:**
   - It must also be clear, concise, and written in a way that engages the learner. If you dealing with a topic that may not seem all that interesting, find a way to draw in the learner by humanizing the content.

3. **Visual Design and Easy Navigation are Essential:**
   - Your e-learning course should include a variety of different multimedia tools, such as pictures and videos, and focus on the overall design of your eLearning course.

4. **Always include reminders of what value the e-learning course offers the learner:**
   - Without reminders, the learners will not be motivated to continue on with the course; given that there is not a goal that they are able to work toward.

5. **Allow the learner to apply their newly acquired skills or information:**
   - Include models, lessons, or exercises that allow the learner to put their newfound knowledge or skill sets to good use.

6. **Design e-learning modules that make the information easily digestible for the learner:**
   - Break your course up into “bite size” modules that allow the learner to gather small bits of information at once. This can reduce content overload, and give the student the ability to actually absorb the lesson.

7. **Create an e-learning course that can be easily maintained:**
   - Keep maintenance in mind when designing your e-learning course.

8. **Make your interface cohesive and consistent:**
   - Your course should look and feel cohesive all throughout.

9. **Avoid cluttered e-learning course design:**
   - Only include information and graphic elements that are relevant and necessary, as this will help the learner to stay focus on the task at hand.

10. **Offer some form of learner support:**
    - You should have some kind of support system in place built into the e-learning course, wherein the learner can receive help if they need it along the way. Live chat, email, and phone are all great support services that you can offer.

DEVELOPMENT OF E-LEARNING COURSE:

On developing any e-learning course, we should take into account the following hints:

1. **Scope the Course**:

   Even before you design, develop, test or do anything related with the project, first consider getting a written approval of the scope. Get everything down on paper, especially your objectives and limitations for the project.

2. **Set Deadlines**:

   Timing, is an essential part of the eLearning development process. Miss a single deadline and you'll ultimately delay the entire project and even lessen its impact or chances for succeeding.

3. **Determine Your Project Team**:

   Assign specific roles and who will be responsible for each stage of the project. Write everything down so you'll know who to deal with or who to ask accordingly.
4. Define Common Terms and Concepts:

Never assume that just because a term or a concept sounds familiar, everyone has a clear understanding of them.

5. Identify All Resources:

They may include presentations, reports and worksheets clients want you to work with or materials created by subject matter experts.

6. Comprehend Technical, Design and Content Guidelines:

Clients would often provide guidelines that cover all aspect of the eLearning development—content, design, technical, brand. Follow them meticulously to achieve consistency.

http://info.shiftelearning.com/blog/bid/335070/6-Most-Important-Things-You-Can-Do-Before-Developing-An-eLearning-Course

Results and Discussion:

The results of our data show a systematic difference in the responses of the one hundred subjects towards almost every item of the suggested questionnaire. Examining table 1 closely, we see that the informants of our study have chosen the ‘’strongly agree’’ variable with a percentage 65% in their response to item number 1, while they have chosen the same variable (i.e. strongly agree ) with a percentage 60% related to item number 2; 90% related to item number 3 and they have chosen the same variable (i.e. strongly agree ) with a percentage 51% related to item number 4. Also they have chosen the variable ( agree ) with a percentage 90,85,80 and 70 % for items 5,6,7 and 8 . These results show a strongly prevailing difference in the responses of our informants towards the eight items of the suggested questionnaire. Hence, this difference supports the fact that the success of E-learning relies on many factors, one of them being the quality of the design of the learning system. In order to achieve its objectives and goals, electronic learning needs an accurate design process.

CONCLUSION:

This paper has indicated the urgent need to ensure that students are ready to learn through e-learning. The skills for learning are not necessarily innate, and in particular, the skills for learning with technology need to be recognized and made more explicit.

Also, this paper has indicated that E- learning relies on learning experiences facilitated by experienced teachers. Because learners have a lot of styles, online teachers should design activities that meet their needs of learning in order to provide satisfactory experiences for each learner.

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Liyan Song, Ernise S. Singleton, Janette R. Hill, Myung Hwa Koh


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Appendix one

The Questionnaire

Table(1)

The attitude towards the Preparation and Development of the E-learning Courses among some students in Zawia University.

<table>
<thead>
<tr>
<th>Items</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-I tell you about an online course you have taken...</td>
<td>65%</td>
<td>10%</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>2-What do you think are the strengths and weaknesses of online courses?</td>
<td>60%</td>
<td>20%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>3-What do you miss about an online course when you are in a face-to-face course?</td>
<td>90%</td>
<td>3%</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>4-Can you talk to us about your sense of connections with others in a face-to-face course versus an online course?</td>
<td>51%</td>
<td>20%</td>
<td>20%</td>
<td>9%</td>
</tr>
<tr>
<td>5-Have you followed courses which involve the use of E-learning?</td>
<td>90%</td>
<td>2%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>6-Have you followed courses which involve the use of chat (synchronous discussion)?</td>
<td>85%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>7- Have you followed courses in which course materials and resources have been delivered online (i.e. within an integrated virtual learning environment)?</td>
<td>80%</td>
<td>5%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>8- Have you followed courses in which you have used a self-assessment programme to test your own learning?</td>
<td>70%</td>
<td>15%</td>
<td>10%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Appendix Two:

The Interview Questions:
What is your name?
In which university do you study?
What is your major?
**Language Background:**

1. Tell us about an online course you have taken…
2. What do you think are the strengths and weaknesses of online courses?
3. What do you miss about an online course when you are in a face-to-face course?
4. Can you talk to us about your sense of connections with others in a face-to-face course versus an online course?

5. Have you followed courses which involve the use of E-learning?
6. Have you followed courses which involve the use of chat (synchronous discussion)?
7. Have you followed courses in which course materials and resources have been delivered online (i.e. within an integrated virtual learning environment)?
8. Have you followed courses in which you have used a self-assessment programme to test your own learning?

**Table (2): Summary of Results**

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Standard Deviation</th>
<th>Mean</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number</td>
<td></td>
<td>Number</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>0.369</td>
<td>3.45</td>
<td>65</td>
<td>10</td>
<td>15</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Agree</td>
<td>1.090</td>
<td>3.22</td>
<td>60</td>
<td>20</td>
<td>10</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Uncertain</td>
<td>2.040</td>
<td>5.40</td>
<td>90</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>0.600</td>
<td>2.90</td>
<td>51</td>
<td>20</td>
<td>20</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Disagree</td>
<td>2.040</td>
<td>5.40</td>
<td>90</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Disagree</td>
<td>1.090</td>
<td>4.80</td>
<td>85</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Disagree</td>
<td>1.010</td>
<td>4.00</td>
<td>80</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Disagree</td>
<td>0.900</td>
<td>3.00</td>
<td>70</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>
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