Rethinking and Redesigning e-Learning: The Reality

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ABSTRACT

The rapid growth of development in information and communication technology allows ample opportunities for the public to acquire knowledge at any time and at any place. Many institutions have created their own e-learning courses or programs to provide the society a means of obtaining degrees via the web. In the field of instructional technology, the decision to use a specific media lies towards the end of the design task. However, in the case of e-learning, the mode of delivery has been decided at the beginning of the design phase which bypasses the analysis of audiences, learning goals and objectives of the course. Now, instructional designers have to refocus as well as rethink the whole process of designing an e-learning course since the traditional basic instructional design models like the Dick and Carey model, or better known as the ADDIE model have to be rearranged to a certain degree. Nevertheless, in reality, a majority of instructors or lecturers have preconceived ideas that courses delivered via the web is a matter of recycling whatever materials they have by digitizing and uploading them to the Internet. This paper will discuss the reality of e-learning, the task analysis, and the importance of rethinking and redesigning e-learning programs.

INTRODUCTION

The design of instruction follows an orderly and methodical approach called an instructional systems design (ISD). Dick and Carey who are advocates of ISD introduced a system called the ADDIE model that presents a linear as well as a systematic design and development process. The acronym ADDIE stands for Analysis, Design, Development, Implementation, and Evaluation and thus, each step in the process is fed into the next phase and performed sequentially one after the other. Specifically, analysis precedes design, and likewise, design comes before development and implementation.

For many years the ADDIE model has been the basis for organizations to design any instruction. Organizations or institutions have adapted, adopted and/or rearranged the steps in
the system depending on the instructional needs. Often times when a problem can not be
identified, it is taken for granted that the analysis phase will provide the solution. Thus far, no
one has disputed the system since the model is well established in its philosophical
assumption that one needs to know the problem first before arriving at a solution.

**E-Learning System**

The introduction of the World Wide Web over more than a decade ago opened
possibilities of additional delivery systems. Ever since the Internet was in vogue, many
institutions started to think digitally and began to create courses to be offered via the World
Wide Web. In an e-learning environment the mode of delivery has been predetermined;
therefore, instructional designers may not necessarily know the audience. Users or learners at
the receiving end may range in experience, skills, competencies, as well as in their
background and culture. Especially in cases when one is designing a graduate program to be
offered via the Internet, how should the whole program look like? How do we cater for
diverse learners? What are the issues to be considered? How does the ADDIE model fit? Can
instructors use the same material they use in a normal face-to-face instruction?

An e-learning system involves both systemic and systematic process of planning,
designing, developing, implementing, and evaluating for the system to be successful. At the
same time the e-learning system has to be meaningful to the learners, instructors and
institution. Thus, the e-learning system has to be built such that it is easily accessible, well-
designed, efficient, flexible, learner-centered, affordable, and sustainable. In turn, this e-
learning environment is a paradigm shift not only for instructors but also for learners and the
institution concerned.
Rethinking, Redesigning and the Reality

An ongoing project called e-MBA at a large public university in Malaysia is in the process of planning to offer a Masters of Business Administration degree program. The present Masters degree has been in place for many years and the move to introduce the degree via the Internet is to provide learners from other countries like Sri Lanka and China an opportunity to obtain an MBA degree without having to travel to Malaysia.

The e-learning system was designed prior to inviting instructional designers from the Centre for Instructional Technology and Multimedia (CITM) to be involved in the project. As instructional designers we were consulted on possible formats of instructional materials that could be incorporated in the system and more importantly to assist the lecturers in converting their presentation or class materials into easily accessible Web format. Unfortunately, reality shows that many view us as just technology experts and not more than that.

First Phase: Overall Overview

Once the prototype of the e-learning system was completed, a workshop was conducted by the e-MBA project leader to introduce the lecturers or facilitators to the overall e-learning environment and various aspects of the learning management system. On CITM’s part, we emphasized that for the project to work, a paradigm shift needs to happen. In addition, the e-learning infrastructure was briefly described (see figure 1). Tozman (2004) points out that “a major goal of good instructional design is to marry content with presentation—both physically and theoretically. Armed with current technologies, instructional designers have new options for designing and developing content. In this array of possibilities lies a new paradigm: dynamic construction of instructional content based on an independently managed presentation and delivery layer. Without the marriage of content to presentation and delivery, content can be easily reused across different media platforms.”
During the workshop, the concept of ‘shovel ware’ was also stressed so that lecturers would be aware that offering a degree program via the Internet is not a matter of dumping existing lecture materials onto the e-learning system but to restructure the content and information differently. The whole course needs to be revamped and a task analysis has to be conducted. Lecturers were requested to refocus and redesign their course materials to achieve learning objectives. Different types and formats of instructional materials were highlighted and possible learning objects were explained. Some examples from other universities that offers e-degree programs like Regis University, Rushmore University, Pacific States University, and the University of London were shown to the lecturers so that they themselves can visualize and conceptualize their own e-learning program.

Discussion also entailed several pitfalls mentioned by Sheinberg (2000) including i) treating e-learning courses like face-to-face courses, ii) jumping straight to the course content, iii) lacking the necessary support structure, and iv) not planning ample time for discussion and teamwork. We elaborated on various issues like possible media, course design, evaluation methods, and learner-support structure.
Since issues on testing and assessment were raised during the workshop, Driscoll’s (2001) suggestions on building better e-assessments were highlighted. Driscoll mentions that designers need to determine how test data can drive sophisticated practices including branching, remediation, and personalization before implementing online testing. She also advocates that when designing online tests, scoring options, analysis reports and linking test scores with learner profiles should be considered.

Another aspect that was crucial to the discussion was the issue of interactivity. Many voiced concern on how to encourage and maintain interactivity with the learners. Suggestions were given and the basics of instructional design principles and the design of visual communication were both explained.

Phase Two: Conversion Stage

The conversion stage involves converting instructional materials into digital formats that is ready for the Web. This process relates to the redesigning and development of the instructional materials first before they could be stored and uploaded into the e-learning system. Participants were required to bring raw materials for their respective courses and we were supposed to guide them in developing a PowerPoint presentation sans the task analysis.

Sadly, during the conversion stage, we discovered that many instructors wanted to use materials that they already have and were more interested in just enhancing or uploading their instructional materials and presentations in the e-learning system. It was rather difficult to persuade them and for them to attune to a new way of thinking about presenting their course materials in an e-learning environment. This new paradigm of thinking and redesigning that ought to have been ingrained in the participants mind were still lacking. There was one participant who even wanted to use the courseware provided by a required management textbook directly. Also, he was not willing to do any changes or add other instructional
materials since he figured that the courseware was sufficient enough and there was no need to reinvent the wheel.

We also discovered that the lecturers cum participants needed ample adjustment time especially in redesigning their own courses to fit into the e-learning environment. Participants were still reserved about the whole program since time is the essence to successful, flexible, and well-thought e-learning program. If current materials were just converted into Web format, then there is no value to the e-learning program and thus, the instructional technology field would be stagnant.

Since the e-MBA program is still in the beginning stages, participants need to understand that much has to be done and once the task analysis is completed, designing the courses would be a much easier time.

References


Biodata

Presently a lecturer at the Centre for Instructional Technology and Multimedia, Universiti Sains Malaysia. Holds a Ph.D. in Instructional Systems Technology from Indiana University. Research interest includes trends and issues in educational technology, e-learning, multimedia design and development, as well as visual communication.