IMPLEMENTING COLLABORATIVE DESIGN IN THE NEXT SERIES OF ELEARNING PLATFORMS

Dorothy Kropf

Walden University, 100 Washington Avenue South, Suite 900, Minneapolis, MN 55401

ABSTRACT

Collaborative design empowers learning management system (LMS) providers and end users (online students) to develop a vibrant teaching and learning community. Successful periodic collaborations utilizing collaborative web tools between these two pivotal groups can produce the next series of eLearning platforms that are fertile grounds for successful online students.

KEYWORDS

Collaborative Design, eLearning, LMS, online learner

1. INTRODUCTION

Despite mounting efforts of post-secondary online institutions to increase student retention and completion rates, it is troubling to see continuous rise of dropout rates online students leave behind. Online learning is a dominating element in this technological society. Several students walk through the doors of virtual classrooms, only to find themselves storming out with mounting student loan debts. More than 60 percent of two-year colleges offer online courses; the number of students enrolled in online courses dramatically increased reaching to over 3 million students (Thiede, 2012). Surmounting attrition rates continue to baffle online institutions. Even if students are motivated to learn, several of them face challenging obstacles that deter them from succeeding. Only a successful online learner (SOL) can rise above these challenges. How does a typical SOL rise above these challenges? What tools does a typical SOL use to succeed? Finally, how can LMS designers create a fertile ground of successful online learners into their online learning platforms (student portals)?

Students face feelings of unfamiliarity in their online classrooms, which makes navigating through a new eLearning platform too difficult and time-consuming. Consider an adult learner returning to school only to face an overwhelming burden of learning to navigate through a student portal while trying to keep up with assigned courses. Motivation and self-efficacy depend on how well an adult learner can adapt to a new environment. A perception of failure or "difficulty to keep up with the class" can drive a new student to abandon aspirations of academic success altogether.

This paper has three objectives. The first objective is to examine a 2008 study wherein learning management system (LMS) designers and end-users (students and instructors) collaborated to identify LMS gaps. The second objective is to examine the profile of an online student in the 21st century. The final objective is to construct a conceptual framework for online collaborative sessions between LMS designers and online students. This conceptual framework is a contribution to the field of education, particularly, distance education, initiating a structure of periodic collaborative sessions between LMS designers and online students to create virtual classrooms conducive to learning. This paper demonstrates that comprehensive collaborative sessions between LMS designers and their end-users (online students) are crucial in creating a vibrant learning and teaching community.

2. GAPS IN LMS DESIGNS

Davoli et al (2008) conducted a qualitative case study wherein LMS designers worked with their end users (college students and instructors with different levels of computer skills) to evaluate the writing and collaboration features of three well-known eLearning platforms. Participants shared their insights with LMS designers and described several technical and aesthetic issues. These issues include system usability, compatibility, navigation, and streamlined workflow. The participants evaluated three platforms, (a) Ping Pong, (b) Blackboard, and (c) Moodle, addressing issues related to online writing activities (Davoli et al 2008). The purpose of the study was not to designate which LMS platform is the best virtual learning environment, but rather, to inform LMS designers the effectiveness of their web tools in assisting their participants to write and communicate with each other (Davoli et al 2008).

The gaps in LMS designs that Davoli et al (2008) discovered were usability, compatibility, navigation, and streamlined workflow. Usability pertains to the straightforwardness and clarity of the system. Compatibility pertains to the users' access to student portals using various browsers and systems. Navigation pertains to the (a) number of clicks required for users to access another section, (b) the ability of users to view class content without having to scroll all the way down, and (c) the ability of users to understand what each link is for, eliminating any type of guesswork. Finally, streamlined workflow pertains to aesthetic issues such as small icons too hard to see; fonts too small to read; or links and tabs too ambiguous.

3. PROFILE OF A 21ST CENTURY ONLINE LEARNER

According to Palloff and Pratt (2003), online learners come from diverse age groups, educational backgrounds, gender, culture, beliefs, and traditions. Understanding what makes an online learner successful can help LMS designers discover what online learners need to persist and succeed in their academic plans. A successful online learner (SOL) must have the technological tools and technological knowledge to access the online classroom and to keep up with the coursework (Palloff & Pratt 2003). The SOL can connect the breadth and the depth of knowledge along with prescribed learning outcomes to practical experiences and through reflective exercises (Palloff & Pratt 2003). The SOL has the motivation, drive, determination, and commitment to keep up with the coursework, to maintain satisfactory grades (at least), and to transform knowledge content into practical applications (Palloff & Pratt 2003). Finally, the SOL keeps a regimented schedule (Palloff & Pratt 2003) for timely assignment and discussion post submissions.

4. CONCEPTUAL FRAMEWORK

Pace (2011) indicated that several online students and their institutions are dissatisfied with their LMS providers particularly with systems' functional features. Welder (2008) indicated that several LMS customers are constantly on the lookout for a better LMS provider. The conceptual framework proposed in this study is a systematic process in which LMS designers and online students can collaboratively create the next series of eLearning platforms. To do so, LMS designers must ask questions related to their systems' usability, compatibility, navigation, and streamlined workflow features and directly align these features against the characteristics of an SOL.

Figure 1 demonstrates the integrative relationships between the four aforementioned LMS gaps with the characteristics of SOL. Usability features that contribute to success have the following features: (a) straightforward commands and keys, (b) interactive activities and tools to promote mastery, and (c) applications that promote organizational skills. Having technological tools that are compatible with one's browser or system can add to one's sense of commitment and determination to succeed. Compatibility solutions include students' access to technical tools that allow them to thrive in their online classrooms. Testing elearning platforms with the least popular to the most common browsers and systems, including mobile devices, can ensure course accessibility. It is easy to assume that all end-users can use a particular browser, system, or mobile device. However, online students come from all parts of the world. A browser or a system that is widely used in United States may not be accessible to students outside of the western region.

Motivation tools in online classrooms including digital badges imbedded in elearning platforms can inspire students to complete learner-centered activities and assignments, including capstone projects and discussion board participation. Mandatory personal development plans can also increase motivation. Reflections on the significant milestones achieved can positively affect one's commitment and determination to persist in an academic program. Enhanced navigational features include tools that can help students retrieve previous and relevant lessons, allowing them to gain the necessary depth of knowledge to succeed. Simple yet powerful navigational tools attributing to sociocultural interactions with peers and instructors, known to promote critical thinking skills based on Vygotsky's sociocultural theory (Wertsch, 2008), are necessary for online students to have to reach higher order thinking. Instructors also need opportunities to leave personalized feedback to motivate their students. Acquiring critical thinking skills enables students to maintain satisfactory to superb grades.

Students should have access to practical applications and interactive tools known to improve grammar, writing, and research skills. All virtual classrooms should promote streamlined workflow. Students working within their eLearning portals should have easy access to outside resources such as research articles, blogs, and relevant video clips or graphic presentations, known to eliminate the redundancy of plain lectures. Just as professional development plans are critical to help motivate students, interactive timelines demonstrating progress reports can also build their confidence.
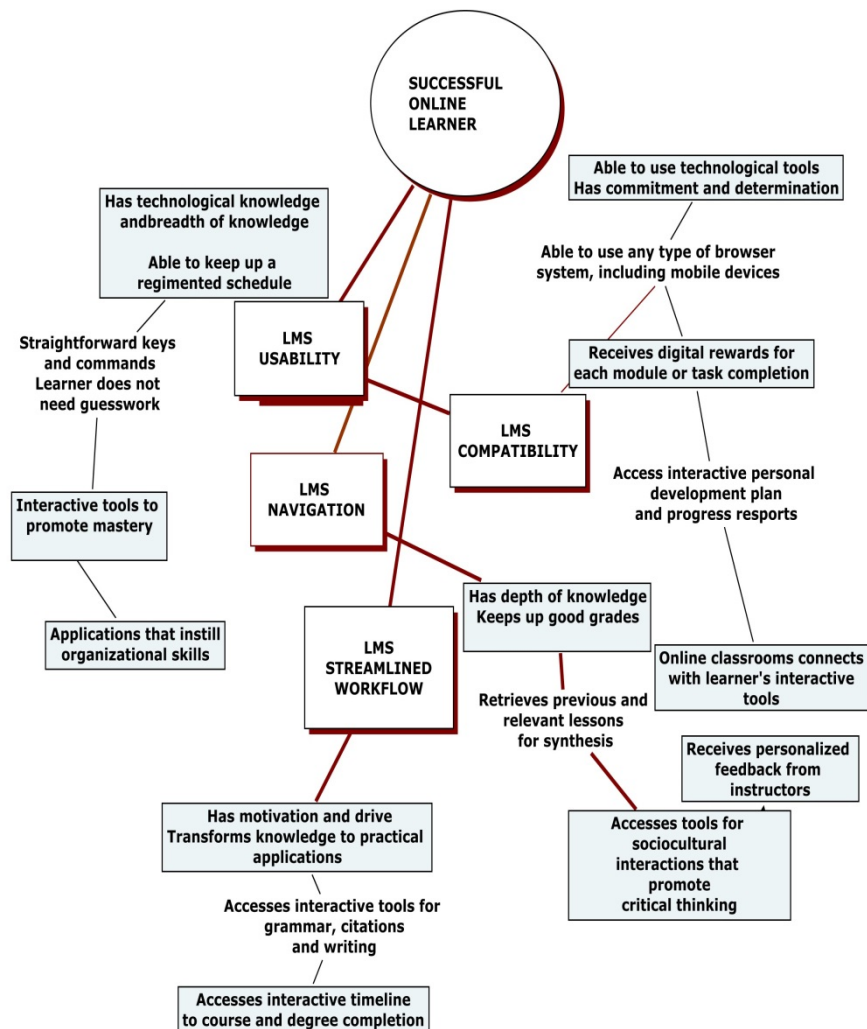

Figure 1. New Elearning Features Collaboratively Designed to Develop a Successful Online Learner.

5. COLLABORATION BETWEEN LMS DESIGNERS AND END-USERS

Collaboration between LMS designers and end-users suggested in this paper include periodic synchronous web meetings. Regardless of the web tools used to connect LMS designers and online students, both test facilitators (LMS providers and designers) and students (testers) should each provide detailed information about the problems, solutions, and issues of the featured eLearning platform related to its usability, compatibility, navigation, and streamlined workflow. Online student participants should test these features and verbalize or write their opinions or ideas about them, while LMS designers should collect these qualitative data. Subsequent collaborative sessions should be scheduled, allowing the online student participants to retest the featured eLearning platform.

Online students in this collaboration must have varying computer proficiencies enabling LMS designers to observe their elearning platforms in the hands of three sets of testers: (a) students new to online classrooms, (b) students who have 1-3 years of experience in online classrooms, and (c) seasoned online students with more than 3 years of experience in an online classroom. Examples of questions and concerns that are important to address during these collaborative sessions include: Are there too many clicks to perform one activity? How many clicks are too many or too annoying? Are all components visible in one screen? Is there enough contrast between the background and the content? Are the links, tabs, or buttons too ambiguous? How many clicks does it take to see a grade book, a personal development plan, instructor feedback? Does the platform provide video clips and graphics easily accessible and easily managed by instructors? Can the dashboard be customizable? Can a student contact an academic advisor or financial aid counselor directly from the dashboard? Does the student portal provide organizational tools such as digital day planners, reminders, notebooks, sticky notes? Can a student access a "time to completion progress" report? Can a student access the school email through outside sources? Are all these features accessible and consistent in any mobile device?

6. CONCLUSION

The collaborative sessions between LMS designers and online students should be comprehensive, allowing both groups to cover all issues and concerns. Future dates must be in place for subsequent collaborative sessions. Online student participants must gain opportunities to evaluate the final changes that LMS designers implemented. Separate collaborative sessions should be replicable for subsequent meetings between LMS designers, instructional specialists, and online instructors. Finally, online student participants, instructional designers, and online instructors should receive periodic updates conducted on eLearning platforms for review. The conceptual framework described in this paper can benefit all parties. Now is an opportune time to harness technology, create, improve, and enhance features to produce an abundant generation of successful online learners.

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