Perspectives on E-Learning

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INTRODUCTION

For students, teachers, and administrators, e-learning is a relatively new and sometimes uncertain event. With popular technologies and instructional trends coming and going, distance learning practice and policies change constantly. Regardless of one's preference for an online learning management system, he or she may be forced to drop it in favor of an inferior and untested courseware shell that was developed internally and adopted solely because it was free. Adding to the confusion, technology tradeshows and teaching and learning conferences continue to alter their themes to fit the current online terminology, which, in turn, changes and evolves. Despite the anxiety caused by the many uncertainties and the accelerating pace of change, teaching online is fast becoming an expected part of one's scholarly endeavors or, at the very least, a legitimate practice of one's colleagues and home institution.

Among many benefits are opportunities to create online learning communities rich in collaborative learning and to assist the learning process of adults who can now share work-related experiences around the globe (Bonk & Kim, 1998). Clearly, adult learners enrolling in online courses are expecting more inquiry activities and learner-centered approaches than in the past. As the adoption of Web-based instruction grows, understanding how to facilitate or moderate student learning in virtual spaces has become an important issue. Online instructors must create situations where students are building knowledge and sharing it with experts and peers who, in turn, offer authentic evaluation and timely feedback. Online instruction, then, must fit into a paradigm that is learner-centric.

Learner-Centered Psychological Principles

What is a learner-centered paradigm and where did it originate? During the early 1990s, the American Psychological Association (APA) announced a set of 14 Learner-Centered Psychological Principles (LCPs) (Alexander & Murphy, 1994; APA, 1993) (see Table 1). These principles were derived after an APA presidential task force reviewed previous research on learning and instruction, motivation, and development since the emergence of cognitive psychology in the 1970s and 1980s. The final set of psychological principles, (APA, 1993), has been widely accepted and assisted many school reform and restructuring efforts. The LCPs address areas such as fostering curiosity and intrinsic motivation, linking new information to old in meaningful ways, providing learner choice and personal control, nurturing social interaction and interpersonal relations, promoting thinking and reasoning strategies, constructing meaning from information and experience, and taking into account learner social and cultural background.

Our previous reports also indicate that the LCPs hold great promise for Web-based instruction (Bonk & Cummings, 1998; Bonk & Reynolds, 1997). For instance, Bonk and Cummings (1998) document a dozen recommendations for designing Web-based instruction from a learner-centered perspective. Their guidelines describe the need for psychologically safe online environments, changes in the instructor role from sage to moderator or facilitator of learning, the emergence of new electronic mentoring practices, and other related ideas. In a nutshell, the LCPs provide a backdrop for thinking about the benefits and impli-

cations as well as the problems and solutions of online instruction.

Along these same lines, many educational technologists are advocating the need to shift from teacher-centered to learner-centered approaches (Hannafin & Land, 1997; Harasim, 1990). Learner-centered pedagogy asks what students need to learn, what their learning preferences are, and what is meaningful to them, not just what is considered basic knowledge in a given discipline or what instructors want to teach. In this regard, Web-based instruction provides a unique opportunity for learning materials, tasks, and activities to fit individual learning styles and preferences. Networks of learning information are available to stimulate student interests and ideas. Such environments also provide access to more authentic learning communities than typically found in conventional teacher-centered educational environments.

In accordance with the learner-centered movement, online tools provide opportunities to construct knowledge and actively share and seek information Hannafin and Land (1997), for example, offer a detailed look at the examples, functions, and supporting research for technology-enhanced learner-centered environments. There is mounting evidence that online course activities enable learners to generate a diverse array of ideas and appreciate multiple perspectives (Chong, 1998). Oliver and McLoughlin (1990) note that online environments allow learners to take ownership over the learning process, engage in social interaction and dialogue, develop multiple modes of representation, and become more self-aware. In many online settings, there are opportunities to pose problems to others online as well as solve them with authentic data. Using virtual classroom or synchronous presentation, learners can construct meaning with their peers with application sharing, online surveys, real-time chats, collaborative writing exchanges, and live content presentations. Simply stated, technology-rich environments support learner engagement in meaningful contexts, thereby increasing ownership. As a result, instructors need to configure their new roles as moderators of e-learning tools. Doherty (1998) noted that that emergence of hypermedia technology combined with asynchronous learning networks provides greater opportunity for learners to take control over their own learning. She argued that learner control is the most dominant characteristic of this new form of instruction. Clearly, the "learn anytime, anywhere, by anyone" mentality will foster additional expectations for greater learner control and learning options. In online settings, learners can decide when to explore additional resources or progress to more complex concepts or modules.

Pedagogical Concerns

With the proliferation of information and fast-changing job roles, there are increasing expectations that learners will soon be guiding much of their own learning (Wisher, 2004). Consequently, instructors need to develop pedagogical strategies and employ technological tools that foster self-directed student inquiry and investigation (Bonk, Kirkley, Hara, & Dennen, 2001). In such environments, tools and tactics for student discovery and manipulation of information, generation of artifacts, and sharing of knowledge are highlighted. In addition, students can examine problems at multiple levels of complexity, thereby deepening their understanding.

Advances in interactive and collaborative technologies are forcing instructional designers and technology users to confront and envision learner-centered instruction as well as their role in it (Doherty, 1998). Fortunately, the Web is emerging as a viable teaching and learning platform for learner-centered instruction at the same time that there is a call for incorporating learner-centered approaches in education. It is difficult to tell whether this will lead to serendipitous or tremulous events or both. What is clear, however, is that there currently is a dearth of pedagogical tools and ideas for Web-based instruction (Bonk & Dennen, 1999; Oliver, 1999). Consequently, most Web tools available today fail to transform or revolutionize education.

As Stephenson (2001) pointed out, online learning has the potential to give learners power and control over their own learning. One can now access experts for advice, download relevant documents, self-assess progress, and collaborate with others around the planet. Too often, however, online courseware is simply meant to facilitate course administration and registration procedures. Given the growth of learning and course management systems, it is clear that many educational institutes are finding these tools valuable (Olsen, 2001). However, these tools by themselves do not guarantee quality learning. They do not foster