LEARNER-CENTERED PARADIGMS FOR ON-LINE EDUCATION: IMPLICATIONS FOR INSTRUCTIONAL DESIGN MODELS

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Abstract

The number of distance education programs delivered in higher education in the United States has increased dramatically since the 1990's. To meet the demand for distance education and competition for students, institutions may rely on traditional instructional design models for development of distance education courses. Consideration of new paradigms may improve the effectiveness of distance education programs. Women are the primary users of distance education programs but women are frequently not involved in the policy or design decisions for on-line education programs (Kramarae, 2001). In addition, gender issues related to learning are often not considered in the design and development phases for distance education. This paper suggests that a learner-centered constructivist design strategy should be considered in conjunction with feminist theory for distance education. The combined approach could provide new insights for addressing the needs of women enrolled in distance education courses.

Introduction

As institutions of higher education struggle to compete for a fair share of students in the distance education marketplace, it is important to examine issues related to pedagogy and instructional design. Stringent time demands and significant competition for students often results in institutions taking courses that were previously delivered in traditional classroom settings and moving the material to distance education contexts. Revisions to material and instructional strategies that are required to effectively deliver courses in distance education learning contexts are often overlooked. In addition, utilization of traditional instructional design models often does not provide a learner-centered focus or consider feminist pedagogy. Such lack of recognition of learner-centered design principles and feminist pedagogy can result in distance education experiences that are less than favorable for women. Failure to critically evaluate the pedagogical foundation and instructional design models used for distance education courses can lead to substandard educational environments. These conditions may not address the diverse needs of women enrolled in distance education courses.

Problem statement and significance of problem

The number of distance education courses delivered by institutions of higher education increased to over 25,000 courses and enrollment figures to over 750,000 students in the academic year 1994-1995 (NCES, 1997 & NCES, 1998). The number of distance education courses exceeded 127,000 for the academic year 2000-2001 and enrollments reached over 3 million for the same time period (NCES, 2003). Current statistics indicate that the number of women who complete traditional and distance education higher education increases at a faster rate than enrollment figures for men (Kramarae, 2003, NCES, 1997; NCES, 1998). In spite of the changing demands for education and training in the global marketplace, research indicates that distance education programs often employ traditional pedagogical frameworks rather than developing alternative instructional models that may be more effective for distance education courses (Benson, 2002; Johnson & Aragon, 2002; & Stevens-Long & Crowell, 2002). Gender differences related to learning are often not a primary focus of traditional instructional design strategies. Kramarae (2003) indicates that "the design/decision processes and regular ways of

talking on-line have not been constructed in negotiation among the people who are taking the on-line courses" (p. 268).

Research indicates that there are differences between the way women and men learn (Belenky, Clinchy, Goldberger, & Tarule, 1997; Gilligan, 1993; Goldberger, Tarule, Clinchy, & Belenky, 1996; Hayes & Flannery, 2000; & Maher & Tetereault, 1994). This suggests that attention should be given to the needs of women enrolled in the courses. Women and men who chose to pursue degrees in alternative formats such as on-line education will benefit from research related to ISD models for on-line courses.

A Glimpse at Instructional Design Models and related studies

During the 1990's constructivist theory gained prominence due to a focus on learning experiences and knowledge construction. Jonassen, Peck and Wilson (1999) described modern-day classrooms that emerged from the advancements in constructivist theory, learning theory and new technology. Jonassen et al. explained that constructivist learning environments (CLE's) "are technology-based environments in which students can do something meaningful and useful…to explore, experiment, construct, converse, and reflect on what they are doing, so that they learn from their experiences" (p. 194). CLE's "is an emerging science so the state of the art is rapidly changing. Due to the rapid advances related to CLE's, it is difficult to make long-term projections about the area; however, the links between learning theory, experience, and technology continue to be important factors in construction of CLE's as optimal learning environments.

Anglin (1995) presented a comparison of forty instructional design models and explained the importance of addressing internal and external conditions of learning in the design process (pp. 166-169). Learner needs assessment was noted as a key element in the ISD process. As the field of educational technology evolves, researchers such as Reigeluth (1996) explore the concept of "a new paradigm of ISD" to address emerging issues in the field.

Issues related to gender and distance education have been considered in research. A study conducted by Taplin and Jegede (2001) researched 713 students enrolled in distance education courses at the Open University of Hong Kong. Findings indicated that gender differences existed on variables such as employment, study habits, support systems, motivation and other factors for participants in the study. Recommendations relate to development of new study strategies, changes to study environments and other factors that could enhance performance of women and men enrolled in distance education programs. Design considerations were not a primary consideration in this large-scale study.

Duffy and Kirkley (2004) explained methods for applying constructivist pedagogical principles to design learner-centered on-line education and described results of a case study of an on-line MBA program (pp. 107-141).

The primary pedagogical goals for constructivist learning environments as identified by Duffy and Kirkley are (p. 110, Table 6.1):

1. "Engage the student in inquiry that will lead to the students' useful understanding of the concepts and skills identified in the course objectives."

2. "Provide structure and support to the learners as they engage in goal-oriented inquiry and problem solving."

3. "Facilitate interaction, collaboration, and a community-based learning environment."

4. "Design an assessment system that is performance oriented, calling for a demonstration of useful understanding."

5. "Promote transfer of knowledge to other contexts through reflective activities and diverse experiences."

This paper recommends that the pedagogical goals described by Duffy and Kirkley should be linked to post-structural feminist pedagogy. The combination of a learner-centered focus and feminist pedagogy could generate recommendations for revisions to the ISD process to address the needs of women as learners in on-line courses.

Feminist Framework

Enrollment trends for higher education indicate that women are the largest growing segment of the higher education market. According to the National Center for Education Statistics (NCES),

"between 1989 and 1999, the number of men enrolled (in degree-granting institutions) rose 5 percent, while the number of women increased by 13 percent… Between 1989 and 1999, the number of male full-time graduate students increased by 18 percent, compared to 59 percent for full-time women" (NCES, 2001).

The American Association of University Women Educational Foundation (AAUW) also reported that: "women are the primary users of on-line education yet they are dramatically underrepresented in the high-tech sectors charged with producing technological solutions and designing technological delivery systems, software, and educational packages. They are also underrepresented among college and university faculty and administrators currently shaping distance education" (Kramarae, 2001, p. 5).

The following summary of feminist pedagogy is included to provide an overview of the literature, authors, and themes (adapted from Tisdell, 1998, pp. 144-145):

Models of Feminist Pedagogy	Authors	Themes
Psychological	Belenky et al. (1986, 1997); Gilligan (1982, 1993).	Psychological development; Development of voice; Relationships/connections; Ways of Knowing.
Structural	hooks (1989); Luke & Gore (1992)(some authors); Moss-Kanter (1977, 1993).	Structures/processes; Power; Divisions of labor.

Post-structural	Goldberger et al. (1996) (some authors); hooks (1994); Gore (1993); Lather (1991); Luke (1996); Maher & Tetreault (1994).	Dealing with differences; Connections between; Shifting identities of students and instructors; Positionality of all participants and the instructor.

The feminist literature base describes the needs of women as learners in various types of educational environments (Belenky et al., 1997; Gilligan, 1993; Goldberger et al., 1996; Hayes & Flannery, 2000; and Tisdell, 2000). Feminist research explains that "feminist pedagogy encourages students, particularly women, working-class students, and members of underrepresented ethnic groups, to gain an education that would be relevant to their concerns, to create their own meanings, and to find their own voices in relation to the material" (Maher & Tetrault, 1994, p. 10-11). Tisdell (2000) explained that feminist pedagogy sought to address the needs of women as learners since the traditional educational strategies seemed to focus on the needs of men (p. 155-156).

Post-structural feminist research expands the literature base by addressing issues and challenges that were raised in response to the psychological feminist model. Tisdell (1998) delineates the four primary elements of the post-structural feminism. First, post-structural feminists "argue for the significance of gender with other structural systems of privilege and oppression…race, class, sexual orientation." Second, post-structural feminism "problematizes the notion of "Truth." Third, post-structural feminists acknowledge the concept of "constantly shifting identity" and the idea that there is "not one Truth." Lastly, post-structural feminism "deconstructs categories and binary opposites such as white-black; heterosexual-bisexual; man-woman; and theory-practice…and rational-affective" (pp. 146-147). In summary, the post-structural feminist perspective acknowledges multiple realities and multiple truths rather than searching for one truth. (Johnson, 2002).

Conclusion

Maher and Tetreault (1994) completed a landmark, ethnographic study that focused on 17 feminist professors in six different institutions of higher education in the United States. The research was completed in the late 1980's and early 1990's. The study revealed key factors of post-structural feminist theory related to the concepts of mastery, voice, authority and positionality. This paper suggests an expansion of the work of Maher and Tetreault by linking their work with the principles of learner-centered instructional design (Duffy & Kirkley, 2004). The results will inform the ISD process by providing valuable insights related to how learner-centered constructivist design and feminist pedagogy can be used to improve the ISD process for on-line courses.

As technology and learning continue to be integrated, it is critical to review the instructional design process to ensure that ISD strategies meet current demands. In addition, as the number of distance education programs increases rapidly and women continue to enroll in large numbers, it is imperative that the needs of women as learners and students from various

cultural backgrounds are considered in the ISD process. Feminist research has argued that the needs of women as learners are not met by traditional education systems that "focused on the needs of men from privileged race and class groups" (Tisdell, 2000, p. 156).

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