Summary of Instructional Design & Learning Theories

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Introduction

This paper examines a lesson written in 2003 by Kathy Keairns of the University of Denver. The main body of this paper will provide a summary of the content. Afterward, this author will provide a conclusion and personal impressions of Keairns' lesson.

Summary of Instructional Design & Learning Theories

Keairns (2003) begins her lesson by stating that scholars assert that instructional design is crucial to the success of distance education. She then defines the difference between pedagogy (the art or practice of teaching) and andragogy (the art and science of helping adults learn). Malcolm Knowles, who coined the term "andragogy," believes that it is a more accurate concept for teaching and learning in higher education (as cited in Keairns, 2003). Andragogy has four principles: adults need to be involved in the planning and evaluation of their instruction; experience (including mistakes) provide the basis for learning activities; adults want to learn subjects that are relevant to their job or their life; and finally, that adult learning is focused on problems rather than content.

According to Knowles, in a student-centered learning environment, the faculty should work as facilitators rather than lecturers. In such an environment, students play an active role in learning instruction (as cited in Keairns, 2003). Here Keairns introduces constructivism, a learning theory that encourages student-centered learning. She notes that it gained dominance among distance learning scholars as a foundation for distance education and modern pedagogy. There are three basic tenets of constructivism: students learn by doing rather than observing; learning should be relevant to the real world and meaningful; students should play an active role in assessment. In addition, constructivism values collaboration, interaction, and cooperative learning. Constructivism is often used as a model for distance learning (Keairns, 2003).

Keairns (2003) moves on to discuss instructional design principles. She outlines three of the most well known: Gagne's Nine Events of Instruction, AAHE's Seven Principles for Good Practice in Undergraduate Education, and the American Distance Education Consortium (ADEC) Guiding Principles for Distance Teaching and Learning. She first discusses Robert Gagne's nine events by listing various web-based strategies that fit each event. For Gagne's first step, "Gain Attention," Keairns (2003) lists the following strategies: effective use of multimedia elements; effective use of color, fonts, and text; including an announcement section; involving current topics in discussion; and referral to appropriate web sites. For the second step, "Inform Learners of Objectives," Keairns (2003) lists holding a course orientation, providing a course tutorial, and posting a course syllabus. For the third step, "Simulate Recall of Prior Learning," strategies include a self-test to apply what learners already know and an online discussion about prior topics. For the fourth step, "Present the Content," Keains (2003) lists web-enhanced lectures, textbook activities, and any other content delivery performed through multimedia and online technologies. Strategies relevant to the fifth step, "Provide Learning Guidance," include posting a syllabus, including course notes, providing course assignments and other related documents, and facilitating discussions. The strategies Keairns (2003) feels are relevant to the sixth step, "Elicit Feedback," include electronic "office hours," student surveys, discussions, quizzes, and requiring students to submit work online. For the seventh step, "Provide Feedback," Kearins (2003) lists strategies such as requiring students to respond to e-mail in a timely fashion, holding online discussions, and providing online "office hours." Relevant strategies for the eighth step, "Assess Performance," include testing, returning graded work, and reviewing student portfolios through electronic means. Finally, for the ninth step "Enhance Retention and Transfer to Job," Keairns (2003) lists strategies such as web-based research to foster critical thinking, team collaborations, resolving case studies, requiring students to develop online portfolios, and utilizing technologies common to the workplace.

Kearins (2003) then addresses the AAHE's Seven Principles for Good Practice in Undergraduate Education, providing strategies that apply to each principle. For the first principle, "Encourage Contact Between Students and Faculty," she lists online discussions with the students and the instructor. Strategies for the second principle, "Develop Reciprocity and Cooperation Among Students," includes electronic team projects and collaborations. For the third principle, "Use Active Learning Techniques," Keairns (2003) recommends web research activities, simulations and practice activities, and giving students choices. For the fourth principle, "Provide Prompt Feedback," she lists strategies such as self-testing as well as returning graded work and responding to e-mail in a timely fashion. Strategies for the fifth principle, "Emphasize Time on Task," include numerous student-centered learning activities. For the sixth principle, "Communicate High Expectations," Keairns (2003) lists having the students assume responsibility for their own learning as a relevant strategy. For the last principle, "Respect Diverse Talents and Ways of Learning," Keairns (2003) lists strategies such as addressing learning styles through flexible learning activities and having students apply technological skills needed in the workplace. Keairns notes that the principles themselves were developed on half a century of research collected by Art Chickering and Zelda Gamson. She quotes Chickering, who states that any strategy can be supported by any new or old technology and vice versa.

Keairns (2003) then addresses the ADEC Guiding Principles for Distance Teaching and Learning. Rather than applying strategies to the principles, she merely lists them as-is: learning experiences must be clearly purposed with tightly focused outcomes and objectives; the learners must be actively engaged; the learning environment must make appropriate use of a variety of media; the environments must include problem and knowledge-based learning; learning experiences should support interaction and development of communities of interest; and finally, contribute to the larger social mission of education and training in a democratic society (Keairns, 2003). All principles, Kearins states, overlap and should be considered when developing for distance learning.

Finally, Keairns (2003) moves to the topic of course development teams, which (as she explains) are used to design web-based instruction and e-learning activities for distance education. According to Keairns, such teams consist of curriculum developers, content experts, and instructional designers. From there, Keairns (2003) discusses the method used by the University of Phoenix's course development team. Instead of content experts, their team uses the dean of the College of Education. The team employs a systematic grid and Bloom's Taxonomy for course development, creating lesson plans and syllabuses. The course development team uses a fictional profile of an inexperienced instructor to help develop content, and real instructors who teach the courses are allowed to modify their course curriculum so long as they meet the content team's objectives. Kearins notes this method is used in both the University of Phoenix's online and offline classes. She concludes by noting that instructional design plays an important role in developing online and hybrid courses, and that all of the components of constructivist learning theory can be effectively addressed in an online setting.

Conclusion

This lesson provides useful insight into several different guiding principles for the development of distance learning courses. Until this assignment, the only one of the three principles presented in Keairns' lesson that Cameron University's Multimedia students had previously been exposed to was Gagne's Nine Events of Instruction. Exposure to and knowledge of both the AAHE's Seven Principles for Good Practice in Undergraduate Education and the ADEC Guiding Principles for Distance Teaching and Learning gives instructional designers a more complete understanding of how to apply instructional design to distance learning development. Especially useful are the tables in which Keairns lists how to apply online learning strategies to every subset of each of the three principles. Overall, the content of Keairns' lesson is useful information for any instructional designer.

References

Keairns, K. (2003). *Instructional design & learning theories.* Retrieved February 17, 2016, from

   http://mysite.du.edu/~kkeairns/de/pdf/Lesson3.pdf

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Read and **understand** the content of the following page carefully. Write a summary of the page content and submit it on time (Feb 20). This will receive a maximum of 15 points (see rubric).

http://mysite.du.edu/~kkeairns/de/pdf/Lesson3.pdf

Rubric:

Introduction—3

Body—3

Conclusion, your rating of the paper—3

Free of Spelling and grammer error (writing center)—3

Typed and Title—3