Chapter 11
Pedagogical Teaching or Andragogical Teaching via MOOCs?

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ABSTRACT
MOOCs are a relatively recent phenomenon in the field of teaching and learning. Although MOOCS are essentially online learning and web based course materials, which have been with us for a good many years, MOOCs, present a new perspective because of the extremely large participant numbers that are possible. As such, MOOCs require us to rethink online learning approaches, and in all likelihood, necessitate a degree of innovation in online teaching. To promote innovative teaching to help adults learn via technology, especially in the context of MOOCs, the authors of this article have compared and contrasted two teaching models. In doing so, the authors indicate that traditional teaching via technology is guided by behaviorism. However, in order to help adults learn in the online environment, instructors should go beyond the traditional teaching model characterized by the use of Bloom’s Taxonomy of Educational Objectives and incorporate humanism, from which andragogy flows. The two models addressed in this article were derived from pedagogical and andragogical assumptions. Traditional or pedagogical principles were developed in as early as the 7th and 12th centuries whereas andragogical principles emerged in the early part of the 19th century in Europe. Both pedagogical principles and andragogical (innovative) principles have been used to guide online adult teaching and learning since universities began to deliver courses in the virtual environments at the beginning of the 21st century.

INTRODUCTION
As educators advanced into the 21st century, we realized that teaching, especially teaching of adult learners, is completed not only in the traditional classroom, but also in the electronic classroom, or what we call “virtual environments”. Since technology can provide convenience and flex-
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In the new century, adult learners try to maximize their learning via technology. Malcolm Knowles predicted that teaching of adults in the 21st century would be delivered electronically (Knowles, 1975). His prediction was warranted as more and more universities have begun to deliver courses via technology. One logical inference as to why Knowles made such a precise prediction is that mature learners cannot come to the traditional classroom to receive their education and training because of their multiple work/family responsibilities. Yet, they must retool their knowledge and skills in order to survive and thrive in the 21st century by continually updating their skills and coping with changing demands in the job market. Knowles further predicted that the de-institutionalization of education, in the form of open and independent learning systems, would create a need for learners to develop appropriate self-directed learning skills. Students entering into these programs without having learned the skills of self-directed inquiry will experience anxiety, frustration, and, often failure, and so will their teachers (as cited in Wang, 2005, p. 35). Self-directed learning skills will help mature learners learn in the virtual environments where they have no face-to-face meetings with course instructors.

Virtual environments provide not only a medium for academic learning but also social networking. King and Gura (2007) argue that learners in the information age not only engage in learning on the Internet, but also engage in online social networking such as making virtual international friends via their online journals, Blogs, Twitter, Google Group, My-Space, and Facebook. In addition, learners, especially those with better computer skills, may engage in constant text messaging, watching movies, and “Googling” for all sorts of information needs directly from their cell phones (King, 2009). Learners now use an iPad, smart phones or Google glasses to take pictures instead of digital cameras. People live in a digitally connected world and the Internet has become an important tool for both teachers and learners. If used well, the Internet can help participants maximize their learning. In other words, the Internet can maximize learning anywhere, anytime given the asynchronous and synchronous nature of online teaching/learning. However, if used inappropriately, the Internet may frustrate learners, leaving them to aimless “Googling” while searching for information they may not need. As teachers and learners, we should be aware of the dialectical relationships between the positive and negative usage of the Internet. It follows that it is vital that teachers employ appropriate teaching methods on the Internet.

The purpose of this article is to compare and contrast traditional (pedagogical) teaching and innovative (andragogical) teaching so that both learners and instructors can determine whether andragogical online teaching is superior to pedagogical online teaching. Without knowledge of pedagogical teaching or andragogical teaching, instructors may find it hard to “prescribe” the right instructional design, let alone the right teaching methodologies in virtual environments. Although scholars and researchers recognize the distinction between the education of adults and the education of children, step-by-step guidelines for andragogical teaching need to be provided. More importantly, practitioners in the field should follow these andragogical teaching steps in order to achieve effective teaching of adults online. Educators can measure and observe student learning outcomes in behaviorist terms; however, andragogical teaching may prove to be a more powerful tool in helping adults learn in the electronic classroom in the 21st century.

THEORETICAL FRAMEWORK

Traditional teaching methodologies (e.g., Tyler’s 1949 four fundamental questions for curriculum development) were derived from Skinner’s behaviorism (1968). Behaviorism’s influence on instructional technology “led to the design of