

Chapter 3

Transformative Learning and Technology in Adult and Vocational Education

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ABSTRACT

Adult learners often fear that they will be unable to find work if they are lacking in technological skills. The media, including newspapers, magazines, and advertisements for positions usually emphasize the importance of the use of technology in the workplace. Without adequate skills in the use of appropriate technologies, adult workers may face challenges in finding employment. But what technologies can do is to provide powerful teaching and learning strategies. This article addresses technological applications in vocational and adult education advancement from different perspectives. Technology has the potential to support transformative learning. Technology, along with the vital role of adult educators, helps learners grow, change, and develop. Through the discussion of these, and related issues, a model titled Learners' Seeking Transformation via Web 2.0 Technologies, has emerged.

INTRODUCTION

Researchers and educators have been addressing the issue: can technology support learning and change for adult workers in vocational and adult education? There is no doubt that learners engage in learning through technology in order to seek change in Bloom's (1956) three domains—the cognitive, psychomotor, and affective domains. Educators and researchers strive to find out whether adult learners can attribute their learning to the use technology by asking the following questions:

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- Do learners *think* differently after completing a class via technology?
- Do learners *act* differently after completing a class via technology?
- Do learners *feel* differently after completing a class via technology?

The three questions revolve around the three domains of educational objectives. Once these objectives are achieved on the part of learners, it may be possible to say that the learners are transformed. Transformative learning is defined as a shift deep in perspective resulting in a frame of reference that is more open, permeable, discriminating, and better justified (Mezirow, 2012). The potential for transformative learning exists; however, the question remains as to who or what contributes to transformation—educators, Web 2.0 technologies, the learners themselves, or a combination of all three. We now examine these three facets of the teaching and learning process.

Course Instructors

Education through technology is characterized by syllabus-based projects, learning activities, and teaching tools that are designed to create collaborative learning environments and relevant experience for students. In addition, education through technology is enhanced by problem-based learning models that differ from lecture-based classes and are usually predicted on a great deal of self-directed learning and collaboration. Learners are supposed to teach themselves what they need to know to solve a problem. Consequently, course instructors are expected to be facilitators or resource persons while students are expected to be more self-directed during the learning process. Course instructors in an online environment usually have the highest degree in their discipline. Then, based on their knowledge base and instructional experience, they are hired by universities or colleges to teach adult learners through the use of technology. Their success depends at least in part on the body of knowledge they possess. In Western cultures, an instructor's teaching is constantly evaluated by students. If instructors keep receiving low ratings from students, they may be asked to participate in instructional development related to teaching and learning or further training in their subject area, but this is always voluntary. In cases, unqualified instructors' employment may be terminated. Those who remain in the academy based on consistently good teaching evaluations are considered knowledgeable in the field. In addition to their knowledge of their discipline and their knowledge about teaching, effective instructors develop rapport with their learners and relate to them in ways that inspire learning and possibly transformative learning. There has been considerable literature on how course instructors can set up an environment in their classrooms that fosters and supports transformative learning for adult learners (Smith, 2012; Merriam & Bierema, 2014).

Technology

Humankind is in the midst of what is possibly the most dramatic technological revolution in history. The advent of the Internet in the late 1990's quickly spawned a second generation of online/web technologies that enable social networking and user-generated content. Online technologies have successfully connected the whole world economically, socially, politically, and culturally in the 21st century and we are truly living in the information age or, in Toffler's terms, the third age (Toffler, 1970, 1980, 1990). Since technology can provide convenience and flexibility, adult learners in the new century 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

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