Is Active Learning via Internet Technologies Possible?

Victor C. X. Wang, Florida Atlantic University, Jupiter, FL, USA
Leslie Hitch, Northeastern University, Boston, MA, USA

ABSTRACT

This study addresses the question of whether or not active learning can be taught online. There are many definitions of learning: It is the process and the sum total of acquiring knowledge, skills, attitudes, values, beliefs, and emotions. There is, however, a nuanced definition of active online learning, defined as methods by which learners actively participate in the learning process (e.g., online discussion groups, problem-solving, experimentation, and the like). Theoretical presuppositions such as informal learning, contiguity, reinforcement, repetition, social-cultural principles and andragogy not only guide the assumption that active learning can take place online but also reinforce that active learning may lead to the creation of new knowledge and the skills needed by learners in this current century. This research reveals that technology, used effectively, enhances active learning benefitting the instructor as well as the learner.

KEYWORDS

Active Learning, Andragogy, Contiguity, Reinforcement, Repetition, Situated Cognition, Social-Cultural Principles

INTRODUCTION

Not all scholars agree at how knowledge is acquired or even what it is for. Noam Chomsky, the world-renowned linguist, intellectual and political activist posed a question for the 21st Century. He asked: Education is for whom and for what? In an age governed by technology, social media, and instant communication, this question has profound and far-reaching implications. Education, was once designed almost solely for responsible men. The “responsible” ones were the ones making key decisions; these elites needed to manufacture and engineer the consent of the people, so the rabble would stay at their feet and do the bidding of the decision makers (Chomsky, 2015).

Others have and had different views of what education is for: “It is immoral to cause children to study just for study alone,” offered John Dewey. Bruce Albert took the enlightenment view of education and alleged it should be a string strung with beads of the joy of discovery that is filled with unending breaths of exploration. Immanuel Kant said, “The goal of education is the pursuit of knowledge for knowledge’s sake, which leads to the process of self-cultivation” (as cited in Taylor, 2010, p. 22). The point of education should not just inculcate a body of knowledge, but develop capabilities: the basic ones of literacy and numeracy as well as the capability to act responsibly towards others, to take initiative and to work creatively and collaboratively.

The history of Western education stems from the medieval period. Then, education was a Trivium, which represented a systematic method of critical thinking which was to derive factual...
certainty from information perceived from the five senses—sight, sound, taste, feel, and smell. In
the medieval university, the Trivium was the lower division of the seven liberal arts, being comprised
of grammar, logic, and rhetoric with the ultimate value arriving at truth not research. As time ticked
on, the history of higher education evolved with the needs of an expanding social infrastructure.
Somewhere around 1636-1850, early New England settlers, many of whom were alumni from the
royally chartered Cambridge and Oxford, needed a place of learning for their clergy. The idea was
to transmit American values such as independence, property ownership and economic development.
Privileged White men needed to understand documents. Therefore, education was valued as a means
to an end ---to develop leaders in the church, state and business. Education taught these men business
civics and how to be a moral person and it was the great equalizer for men.

In the more recent centuries, Knowles, Holton and Swanson (1998, 2005, 2011) defined education
and learning as emphasizing the change agent who influences changes in others. Other scholars
(Boyd et al., 1980) considered learning as the act or process by which behavioral change, knowledge,
skills, and attitudes are acquired. Gagne (1985) defined learning as a process leading to a change in
a learner’s disposition and capabilities that became reflected in behavior.

Likewise, the German social theorist, Jurgen Habermas (1971) suggested that human beings
have different interests or needs in life: to control their environment, to get along with others, and to
be free from oppression and constraints. Each of those elements lead to the acquisition of knowledge
in order to satisfy human need. Habermas further noted that human beings render learning through
instrumental knowledge, practical knowledge and emancipatory knowledge.

Much of the Eastern view of education is based on Confucius which focuses on the cultivation
of the inner experience, both as a way of self-knowledge and as a method of true communion with
the other (Tu, 1979, p. 103). To Confucius, the goal of education was tied directly to learning. It was
to free one completely from four things: arbitrariness of opinion, dogmatism, obstinacy, and egotism
(Wang & King, 2006, 2007). Further, Confucius thought of learning as emphasizing meditation to
control oneself. Using Confucian thinking as the foundation, scholars have made the distinction
between active learning and passive learning.

There are open discussions and differing views of education from Western or Eastern viewpoints.
Yet, these differing worldviews agree on a more universal definition of learning. That is, learning
is reflected in a change in behavior as the result of experience (Haggard, 1963). In other words, learning
must be associated with development and growth (Merriam, 2004). That is probably why Maslow
(1970) viewed the goal of learning to be self-actualization. Therefore, he explained self-actualization
as the full use of talents, capacities, potentialities, in other words, active learning.

Learning does not take place in a vacuum, but rather always in a context. Learning takes place
in any type of environment. One learning environment is through technology as the primary delivery
rather than the enclosed and traditional classroom. What, however, is of concern to educators is
whether active learning can occur online. If it cannot, active learning may lose its true meaning in
our technology-driven, knowledge-based society and information age (Wang, 2005). Towards this
end, the first two sections of this article address how technology and social media promote informal
education, a key form of active learning. The next two sections explore the theoretical base of how
active online learning promotes learners’ growth and development. The last section and the summary
make the assumption that the future direction of education will incorporate more technology, whether
online or social media platforms and that active learning is a key component of this future direction.
The purpose of this article, and its limitation, is neither to solely study active learning for its own
sake nor to present an analysis of active online learning. It is rather to examine the question; can
active learning occur online?
Developing Self-Regulation Skills in Virtual Worlds: An Educational Scenario Applied in Second Life
www.igi-global.com/article/developing-self-regulation-skills-virtual/65739?camid=4v1a