

## Determining Adequacy of the Principles of Learning Course Wiki

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\* Even though images on title pages aren't common in APA, I included one here for added interest

### Abstract

The Principles of Learning course wiki was examined for its ability to adequately supply information based on a specific set of search criteria. The content found on the wiki was expected to be sufficient in depth and breadth to either confirm or contradict the “Ten Core Principles for Designing Effective Learning Environments: Insights from Brain Research and Pedagogical Theory” by *Judith V. Boettcher* – in particular, core principle three, which states “we shape our tools and our tools shape us” (2007, p.3). Despite some gaps in content - which were predictable for a website still in its infancy (two years old) - the search turned up relevant posts in the categories of theorists, theories, and learning technologies that confirmed Boettcher’s third core principle. These findings suggest that the wiki was an adequate resource for my research needs.

*Keywords:* principles of learning, wikis, learning tools

### Determining Adequacy of the Principles of Learning Course Wiki

The oldest public wiki (Portland Pattern Repository) was created in 1995. Since then wikis have proliferated online, producing with them thousands of internal knowledge bases on an extraordinarily vast and variable number of topics. For users who frequent these collaborative editing environments searching for information on people, places, or things, a wikis’ worth is measured by its ability to provide relevant matches for said information.

The UOIT Principles of Learning wiki, created by Professor Bill Hunter for M.Ed. students, is a site that has proven its worth by adequately meeting the search criteria presented in the abstract in two ways. First, the wiki has detailed posts on theorists and theories that support or align with Boettcher’s “core principle #3” (2007, p.3). Second, the wiki stores information on a number of online tools that have shown great potential for transforming education models in ways that are consistent with Boettcher’s “core principle #3” (2007, p.3).

### Findings

Boettcher (2007) writes in her description of the third core principle that it arises from the fact that learning occurs only within a context. She continues with, “this contextual feature of learning has its roots in the theories of Dewey (1933) and Vygotsky (1962), and it continues to inform the more recent work of Damasio (1999) and Bransford et al. (2000)” (Boettcher, 2007, p.4). Apart from Damasio, all of the theorists cited above

were present on the wiki under the section titled ‘theorists’.

Dewey’s theory of differentiated instruction, which recognized that learning happens uniquely to each student, supports the inclusion of learning tools in the classroom for their ability to allow students to customize their own learning experiences (“John Dewey”, 2010).

Vygotsky’s Zone of Proximal Development (ZPD), described as the difference between what learners can achieve on their own and what they can achieve with assistance (Ormrod, Saklofske, Schwean, Andrews, & Shore, 2010, as cited in Boettcher, 2007), can be viewed as supporting the use of effective learning tools in the classroom (“Zone of Proximal Development”, 2010). By ‘effective’, I am referring to a tool’s ability to act as an assistant or guide in the learner’s pursuit for knowledge, and by doing so, moving a student’s learning outcomes from the ZPD, and into the ‘developed’ category.

John Bransford is another respected researcher interested in how people learn. He has written extensively about the benefits of web tools as technological teaching aids. His work has cultivated “generalizable interdisciplinary theories that can guide the design of effective new technologies and learning environments (“John Bransford”, 2010).

Two more notable wiki contributions, in the areas of ‘theorists’ and ‘theories’, were Jerome Bruner and John Sweller. Like Bransford’s work, Bruner and Sweller’s theories on scaffolding, and cognitive load, respectively, has helped to inform the instructional design of online learning tools, thereby making them more effective (“Scaffolding”, 2010, “Cognitive Load Theory”, 2010).

With regard to the third principle, Boettcher writes, “tools make a difference in any learning environment” (2007, p.3). Looking back at previous generations, having a faculty member lecture while students took notes was the status quo of teacher/learner relationships (Boettcher, 2007). Today, powerful tools exist online that aid in communication, collaboration and research. Mobile tools, in particular, have transformed teaching and learning experiences from teacher-centric to learner-centric (Boettcher, 2007). They have also helped to dissolve the physical barriers of the classroom with their “anywhere/anytime connectivity” (Boettcher, 2007, p.3). Searching the wiki for tools that have been cited in research as offering potential for the kind of transformative learning experiences mentioned above, I quickly found posts on wikis (how meta), learning management systems, blogs and group conferencing technologies, such as Skype and Adobe Connect.

### **Conclusions**

The UOIT Principles of Learning wiki is an adequate, and expanding, source of information on theorists, theories, and learning tools, many of which confirmed Boettcher's "core principle #3" (2007, p.3).

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