Constructivist Theories and Online Learning Best Practices: A Discourse Analysis

Jennifer H. Kelland
University of Alberta

Abstract: By examining the best practices and recommendations made by distance and online learning organizations, constructivist learning theories constituted one of the themes highlighted in the discourse of online learning theory. Contradictions within the guidelines illustrated some of the challenges of implementing constructivist learning theories in this context.

Introduction

Constructivist learning theories (both constructivism and social constructionism) have been associated with both feminist education and adult education (Merriam & Caffarella, 1999). Now, these theories are being promoted for use in online learning environments. This paper will explore how constructivist learning theories are applied in online learning settings where instructors and adult learners interact primarily through computer-mediated communication. By examining the recommendations and best practices of organizations that promote online and distance learning for use with adult learners, and how these recommendations are communicated on their organizations’ web sites, I will critically examine the online learning theory discourse used to present constructivist theories in these recommendations.

Discourse analysis is a research method that examines written texts to identify their “overt and hidden meaning” (McGregor, 2003). It can be used to identify values or social systems that are expressed in texts, by their authors and by the larger social context in which the author operates by looking at the content, the language used and the way ideas are expressed. This approach relies on a “deconstructive reading and interpretation of a problem or text” (Palquist, 1999). In this research, discourse analysis will also be helpful in understanding how the recommendations and best practices are positioned within the organizations’ framework and larger social networks, and critical discourse analysis will help to identify relationships of power and politics that are reflected in the recommendations (Fairclough, 2002; McGregor, 2003).

My preliminary review of the recommendations identifies the application of constructivist principles as one recurring theme, although extended analysis may identify other themes. I will examine these recommendations to see how constructivist learning theories from traditional adult education contexts are being presented for use in online learning environments. I will also consider issues that may arise in implementing the recommendations offered by these organizations.

Constructivist Learning Theories

Essentially, constructivist and social constructionist theories both claim that “knowing is doing is being” (Davis, Sumara, & Luce-Kapler, 2000)(Davis, Sumara, & Luce-Kapler, 2000, p. 69). In other words, knowledge comes from action and interaction with the environment around a learner. Characteristics of constructivist learning theory in practice include constructing knowledge, using practical work such as problem solving activities, group work, and
collaborative learning. While constructivism focuses on the individual’s interaction with the physical environment through the body, social constructionism asserts that understanding is culturally-based, and therefore, developed through interaction with other people in a social context or society (Davis, Sumara, & Luce-Kapler, 2000). Social constructionists consider the role of language, history, tradition, and social institutions in knowledge construction and evaluation and they recognize that knowledge does not exist outside of social systems (Davis, Sumara, & Luce-Kapler, 2000). Consequently, discourse analysis of the language used in online learning best practice documents to describe online learning theories is consistent with the theories’ epistemological stance.

Research Design

I conducted a review of online learning organizations’ web sites to find policy documents, recommendations and best practices for creating and maintaining effective online learning settings. I conducted a preliminary review of relevant web sites while I prepared my M.Ed. thesis about online learning, and I identified organizations that recommended applying constructivist theory in online learning in English-language organizations located in the United States (American Distance Education Consortium [ADEC], 2002, 2003) (Sullivan & Rocco, 1997), Europe (Open and Distance Learning Quality Council [ODLQC], 2002, 2005), and Canada (Barker, 2002).

I examined the recommendations or best practices for educators, practitioners, and instructional designers that are published by online learning organizations. One recurring theme in these documents was the promotion of constructivist learning principles, so I considered their congruence with constructivist theories such as problem solving activities, group work, and collaborative learning. I sought consistencies and contradictions within the recommendations.

Discourse analysis was used to study how constructivist learning theories are constructed and promoted by the recommendations; to consider commonalities and differences in organizational discourses; and to identify challenges that may arise when taking a theory from one communication and education medium (i.e. face-to-face learning) and applying it to a new medium (i.e. online learning).

Some of the questions I considered: Since constructivist theories understand that knowledge comes from action and interaction with the physical and social environment around a learner, how is this approach described for use in online learning contexts where most learning occurs independently or through virtual interactions? Does the discourse used to describe these learning theories rely on language associated with the physical classroom like “hands-on activities” or “site visits”? How do the organizations’ web sites reflect their recommendations about online learning best practices?

Organizations in This Study

In this research I examined organizations including the American Distance Education Consortium (ADEC), the American Council on Education (ACE), the European Open and Distance Learning Quality Council (ODLQC), and the Canadian Association for Community Education (CACE). They were chosen because they represented, developed and were used by multiple educational providers. They also represented different geographical locations, yet they show some commonalities across countries. The organizations all focus on providing services for adult learners and/or post-secondary contexts. Each organization, as described below, has its own
reasons and process for developing their guidelines.

First, the American Distance Education Consortium (ADEC) provides “guiding principles for distance learning” (2002) and “guiding principles for distance teaching and learning” (2003). Second, Sullivan and Rocco (1997) offer another set of American recommendations which were developed “by a task force for the American Council on Education and The Alliance: An Association for Alternative Programs for Adults” with an objective to “formulate guiding principles for learners, and assessors of learning quality in formal education programs” (Sullivan & Rocco, 1997). Educational instructions that were members of Going the Distance were encouraged to adopt these distance learning principles. Third, the European Open and Distance Learning Quality Council (ODLQC) provides “standards in open and distance learning” (2005) which will be implemented in April 2006 to replace an earlier version of the standards (2002). These standards were designed for use by online and distance education providers who were seeking accreditation from the ODLQC. Fourth, in Canada, the “Canadian recommended e-learning guidelines” or “CanREGs” (Barker, 2002) offer guidelines for Canadian providers. They were developed through research and consultation with input from national and international organization, under the organization of the Canadian Association for Community Education (CACE), and the Office of Learning Technologies (Commonwealth of Learning, 2002).

Preliminary Findings

Based on a preliminary review of sites I conducted during my M.Ed. thesis, I found that constructivist learning theories were frequently recommended by online learning organizations. Online learning organizations recommend that online learning opportunities be developed around constructivist principles, including constructing knowledge, practical application, and collaborative work. However, I also found inconsistencies: recommendations encouraged hands-on activities that may be difficult to offer in a virtual learning environment; recommendations would simultaneously encourage self-direction and collaborative work; and recommendations encouraged instructors to allow learners to shape their own relevant learning objectives while, at the same time, they recommended quantifiable outcomes.

Constructivist Discourse

First, some recommendations refer directly to constructing knowledge. The ADEC’s guidelines for online courses even list “knowledge construction” as a “characteristic of quality web-based teaching and learning” (2003). Similarly, the CanREGs guidelines recommend using technology to “enable active engagement in the construction of knowledge” (Barker, 2002, p. 5).

Second, recommendations encourage practical application of course learning. For example, the American Distance Education Consortium (ADEC) (2003) recommends educators use “active, hands-on, [and] concrete experiences,” and that they show the connection between the course material and real-life experiences. ADEC also encourages the use of “problem-based” learning opportunities (2002; 2003). Similarly, the CanREGs recommends “foster[ing] active learning” (Barker, 2002, p. 5) and “authentic” evaluation that are an “accurate representation of the contexts encountered in the field of study or in real-life faced by learners” (Barker, 2002, p. 5). This group also includes a guideline about “mak[ing] available real-world situations and simulations” (Barker, 2002, p. 5). All these recommendations clearly espouse the characteristics of constructivist learning theory where the learner gains knowledge from interaction with the environment through problem-solving and hands-on learning. Constructivist educators also
advocate giving the learner the opportunity to make choices about learning based on previous experience, current interests, and perceived needs, which is also characteristic of self-directed learning.

Third, online learning also seeks to encourage collaborative and the social components of learning. ADEC lists both collaborative learning and “the development of communities of interest” (2003) as important components of online learning. The organization goes even further by stating:

[T]he practice of distance learning contributes to the larger social mission of education and training in a democratic society. Changing mental models and constructing new knowledge empowers learners and encourages critical thinking. ‘Knowledge becomes a function of how the individual creates meaning from his or her experiences; it is not a function of what someone else says is true.’ (Jonassen, 1995)

Clearly, the ADEC recognizes both the social position, and the social role and responsibility of online education. Similarly, Sullivan and Rocco (1997) identify “learning [as] a lifelong process, important to successful participation in the cultural, civic, and economic life of a democratic society.” In another example, CanREGs encourages “flexible opportunities for interactions and problem-solving” and “the opportunity for student collaboration” (Barker, 2002, p. 6) as well as interaction between learners and faculty, other learners and others in the field of study. ODLQC also recommends “peer group interaction” (2005). All these organizations recognize the importance of relationships in the learning process, and they recommend that relationships play roles in online learning.

Contradictions

However, despite the recommendation that constructivist and social constructionist learning theories be adopted and implemented, there are contradictions inherent in the organizations’ guidelines. First, the recommendation of active, “hands-on” learning implies that the learner will have physical contact and experiences beyond interacting with a computer terminal. One could argue that multimedia simulations can provide learners with access to situations beyond their computers. However, computer-generated situations are not the same as physical experiences in the uncontrolled and unpredictable “real world.” The only hands-on contact in an online simulation is that of the fingers on the keyboard and the mouse. Furthermore, most distance learning programs still rely on written texts rather than multimedia presentations for the majority of their content. As von Prümmer (2000) states, knowing the guidelines and actually applying them are very different:

[M]any institutions are a long way from achieving and implementing what they know to be good practice.... despite lip-service to the use of a combination of media, most distance education remains dominated by print; we have not moved all that far from correspondence education. (p. 197)

A second contradiction is obvious in the simultaneous recommendations for self-direction and for collaborative work. Situations that promote self-direction and flexibility for the individual learner are not always compatible with the type of educational situations required for collaboration. For example, CanREGs recommends “increase[d] learner control over time, place and pace of instruction” and suggests that technology should be used to “accommodate and promote individualization” (Barker, 2002, p. 5). If the learning context enables the learner to progress through “modular, stand-alone units that are compatible with short bursts of learning”
(ADEC, 2003), it is unlikely that all learners will progress at the same pace, which has implications for collaborative work. Being truly “responsive to learners” can mean that coursework is completed in any number of timeframes (Barker, 2002, p. 5). Similarly, ODLQC (2005) recommends “access to tutor on a[n] […] individual and flexible basis”. Again, this flexibility can conflict with the concept of collaboration, which requires connection across time and distance. This focus on collaboration also fails to recognize the learners who seek out distance learning situations in order to avoid the social aspect of learning (von Prümmer, 2000, p. 45).

A third inconsistency between constructivist and social constructionist theories and the guidelines for distance learning is the focus on specific objectives. Specific objectives for the learner should respond to learners’ needs and be “relevant, i.e., useful and appropriate for the intended learners ... observable/demonstrable [and] measurable” (Barker, 2002, p. 6). Similarly, ADEC (2003) recommends that “the learning experience must have a clear focus with tightly focused outcomes and objectives.” Sullivan and Rocco (1997) also have a strong focus on outcomes: “Distance-education programs organize learning activities around demonstrable outcomes, assist the learner to achieve these outcomes, and assess learner progress by reference to these outcomes.” Meeting these objectives or outcomes limits the opportunities for learning that may not be clearly measurable, learning that extends beyond the intended objectives of the course, for example finding new applications for learning in non-academic contexts, or learning that may meet needs that the learner has not yet identified.

Finally, the guidelines state they value social interaction for collaborative learning, yet they allow learners to work without contact with other learners. In addition, all communication is mediated by technology, which makes learners invisible to each other and ignores their embodied knowledge, which according to constructivists, is an essential form of knowing. By excluding this type of knowledge, online learning is essentially relying on cognitivist learning theories, which separate mind and body, valuing the mind over the body. If the goal of online learning is truly to provide instruction that is “free of cultural, racial, class, age and gender bias” (Barker, 2000, p. 6), then it is necessary to acknowledge and examine these issues rather than making learners invisible. Yet, only two of the organizations even provide a recommendation or guideline that acknowledges the diversity of learners; Barker, as cited above, and ODLQC (2005) which states “[the provider…] does not discriminate, directly or indirectly, on grounds of gender, sexual orientation, race, colour, nationality, ethnic origin, or religious or political belief.” Sullivan and Rocco (1997) do recommend that “support systems are [...] responsive to diverse learners.”

Other Themes

While I chose to focus on the discourse in these organizations recommendations related to constructivist learning theories, there were other themes exemplified within the discourse. Among the themes that could be further examined are the following: the commercialization of education, outcomes and accountability, self-directed learning, and lifelong learning. These themes all recur within the documents I examined.

Implications

The expansion of online learning requires adult educators to select appropriate learning theories, adapting them to this new context, and developing appropriate language to express their
application of the theory. By raising some important theoretical and philosophical questions, the examination of the discourse of constructivism in online learning is helpful to educational programs and institutions that are developing or implementing online learning programs for their adult learners. This paper described organizations are proposing to apply constructivist theories. It has made an effort to show how discourse analysis can help to explore issues and questions arising in this field. It may also influencing thinking regarding multiple interpretations of language, or identify situations where appropriate language needs to be developed to facilitate the application of constructivist theories in online learning settings. This research is very relevant as adult education continues to meet the challenges of a new millennium.

References