
If You Build It, Will They Interact? The Importance of the Instructor

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Kraiger (2008) noted the importance of a key social element to learning, learner–learner interaction (Moore, 1989), stating that it is the “cornerstone to third generation learning.” However, practice has revealed many instances where rich learner–learner interaction failed to develop. We do not dispute that learner–learner interaction is central to learning; however, we believe that Kraiger did not place enough emphasis on the importance of the instructor in Web-based instruction (WBI). In order for this type of interaction to occur, there must be a sense of community. Lack of trust and increased learner control from traditional face-to-face training can hinder effective community development, negatively impacting learner–learner interactions. We, therefore, submit the only way for meaningful learner–learner interaction to occur is through active guidance and participation by an instructor. This raises questions regarding whether it is truly possible for learner–learner interaction to be the core foundation for future training systems or whether instructors will continue to drive both development and implementation.

Developing Trust

There are less rich cues transmitted through technology-mediated communication than face-to-face communication—specifically, those nonverbal cues, which aid in building trust, are not transmitted (Rocco, 1998). Additionally, behaviors that inhibit the development of trust, such as flaming, are more likely to occur in a computer-mediated communication than face to face (Putnam, 2000). Research has shown that teams who communicate electronically do not build trust (Rocco, 1998) and distributed teams experienced decreases in trust over time, whereas face-to-face teams increased their levels of trust (Aubert & Kelsey, 2003). Therefore, Brown and Van Buren (2007) suggest that trainees within a single online training event will not develop trusting relationships compared with trainees in a face-to-face course.

Much has been written about what constitutes a good online instructor. Smith (2005) outlined 51 competencies for online instructors discussed in the literature, noting different competencies are required prior to the start of a course, during a course, and after conclusion of a course. Several competencies described by Smith relate to developing a sense of community, which is essential in order to facilitate learner–learner interaction. These include acting like a facilitator of knowledge, promoting collaborative learning, developing cooperation among students, encouraging student–faculty contact, helping students integrate into the course culture, and developing relationships with

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students. Essentially, these competencies are related to creating an atmosphere of trust. Without the presence of someone to guide the development of trust, it likely will not spontaneously occur, which will negatively impact the creation of effective learner–learner interaction.

“Teaching” About Learner Control

As noted in a meta-analysis, learner control has small effects on learning and very little to no effect on attitude (Kraiger & Jerden, 2007). Increased control has led to decrements in satisfaction (Carlson, 1991), learning outcomes, and time on task (Lai, 2001). Research has also indicated, however, that providing trainees with the opportunity to skip additional instruction, rather than giving them the option of adding instruction, results in trainees seeing greater amounts of content (Hicken, Sullivan, & Klein, 1992). Thus, it appears as if students do not seem to understand how to use the control within an online learning environment.

Effective WBI instructors need to teach learners techniques for working in online learning environments. This involves competencies required for (1) course preparation, such as being clear that interaction is part of course requirements and communicating expectations for the level of participation (Smith, 2005) and (2) during the course, such as promoting active learning techniques, helping learners to link delivery mode with their own personal learning styles, and teaching students about online learning (Smith, 2005). Although there are a host of other competencies related to technology use and course management, the skills highlighted above directly relate to the goal of increasing learner–learner interaction. Without each of the above competencies, learner–learner interaction will suffer.

Third-Generation Learning Model—What Is the Difference?

It may be argued that some of the above competencies also apply to second-generation learning models. So what is different or

new for the third-generation models? Kraiger delineated the role of the instructor as “organizing content, presenting content, demonstrating skill, modeling attitudes or values, and requiring assessment ... [and] counseling, supporting, advising, chastising, and challenging learners as necessary.” We contend that these are not suggestions, but essential duties of an instructor in WBI. As noted by Arbaugh (2008) in his commentary, researchers have suggested that social presence alone was not enough—that a teaching presence was required. We agree with his suggestions that this involves course design and content organization, facilitating discourse (modeling and engaging), and direct instruction. Failed early constructivist educational efforts have shown that simply organizing the information into a meaningful representation of the content domain is not enough. If a goal of third-generation models of learning is to allow for questioning, challenging, and discussion (Bates, 2000), instructors need to model these very techniques. Additionally, with all the options for presenting material that technology affords instructors, it is the appropriate use of these options that will truly improve instruction. We have seen instructors who waste available technological resources by not using them at all or by forcing the use of certain media features that were inappropriate given the learning objectives or course material. However, exact technology–instruction fit is still unclear. Although there have been many attempts to create a typology for technology, more empirical research is needed.

Some may argue that true social constructivists believe that instructors should not present any material—that learning is embedded in the social context itself. If this is true then a question arises as to the positioning of third-generation models. We must move beyond simply informing to stimulating a desire within learners to create more complex mental models of the material—to inspire learners to piece together the information, based on their own past experiences and experiences of others, into meaningful schemas that can easily translate into improved performance. For this to occur,

instructors must take an *active* role in the learning process, guiding the experience by designing, developing, and delivering interactive content.

This is a departure from purely constructivist notions of learners as active participants and instructors as facilitators of knowledge acquisition. If third-generation learning models are conceptualized as an extension of first and second models—pulling all the best from those models and incorporating the richness of learner–learner interaction, then we believe all three models can continue to exist in various forms, depending on the situation. However, based on a purely social constructivist notion of an instructorless learning environment, then we do not believe it is possible for effective learner–learner interaction to spontaneously occur. We are optimistic that issues of trust development and learner-controlled instruction can be addressed with continued improvement of sound expertise models (i.e., intelligent tutoring). Yet, we contend that without an instructor actively developing a sense of community and teaching learners to manipulate their learning environments, learner–learner interaction will not likely occur, leaving us stifled in a second generation of learning and continuing to see technology-enhanced learning fail to live up to expectations.

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