The Maturity of the Field of Instructional Technology

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The Maturity of the Field May Be Gauged by the Robustness of its Theory Base

Because of Instructional Technology’s eclectic nature, a variety of theories, ideas, and beliefs have influenced the field and its separate domains. Seels & Richey (1994) listed the following disciplines as “intellectual roots” in the research and theory of the field: psychology, engineering, communications, computer science, business, and education (p. 68). With the contribution of theory and research in these subject areas, one might determine that the field is indeed mature.

However, the field of Instructional Technology is by no means mature. Maturity indicates full development, and Instructional Technology, because of its inherent nature, maintains progress. This growth, development, and adaptation is due to the continued emergence of new technology, critical analysis, diverse perspectives, alternative philosophies, and theoretical positions that challenge IT’s status.

Since its origins over half a century ago, Instructional Technology has been considered a science, where knowledge is assessed through objective and logical results. This positivist perspective continues to be central in IT although alternative views are emerging, underlining a post-modernistic approach to the field. This is a consequence of the innovation and advancement of technologies, new theoretical perspectives on constructivism in learning, and added emphasis that Instructional Technology is not only a science but also an art. These innovative and divergent viewpoints have directly impacted and modified the research and theoretical panoramas within the domains of Instructional Technology.
Each domain of Instructional Technology is shaped by research and theory, values and perspectives, and technology’s capabilities (Seels & Richey, 1994, p. 68). The field remains emergent both theoretically and practically. For example, Instructional Technology’s psychological base originated with Skinner’s work in programmed learning in 1954. Since then, accepted concepts and theories in the field of psychology have emerged. Cognitive psychology and constructivism are accepted theories in the field and as a result, have incorporated into Instructional Technology theory and research, especially in its evaluation domain.

The behaviorist approach in needs assessment assumes that the learner will perform a certain programmed and predetermined way if learning takes place. This is classified as external orientation in that the result is externally measurable. The cognitive approach differs in that it is concerned with the changes that occur within the learner’s knowledge, and is measured by the internal effect learning has on the learner’s memory, knowledge, and information process. Constructivists also focus on the internal changes that take place within the learner, and according to Grabe & Grabe (2004), learning is “actively assembled by the learner”, is adaptive, and is constructed through the mental actions that take place within a contextual environment. This active and meaningful individual construction of knowledge is what enhances one’s personal knowledge on a subject (p. 57-58).

Instructional Technology has progressed towards a more learner-centered awareness where motivation plays a key role in the theory and research related to the domain of instructional design. Although research has contributed to the theories, creating and maintaining a motivated learner entails many unique and experiential factors. The structure of a learning task and the techniques for providing effective feedback depend on the type of media that is utilized. As Seels & Richey (1994) emphasized, the selection of media plays a central role in promoting
learning, and the instructional setting, content, and learner characteristics determine the media that will be utilized (p. 74). Because of this, the interaction between the instructional medium and the learner’s individual characteristics are directly related, as Kozma recognized in 1991 (as cited in Seels & Richey, 1994, p. 74).

The field of Instructional Technology is still evolving due to the changes that occur within its theoretical disciplines. Although IT has a robust theory base, it is not capable of reaching maturity since it is eclectic, and relies on so many disciplines to progress. The post-modernistic approach to Instructional Technology recognizes that “any single definition of the field . . . [stifles] the creativity needed to stimulate productive inquiry and practice” (Seels & Richey, 1994, p. 90). The contribution of diverse theories and philosophies within the field reinforces the field’s expansion and progress, and establishes its perpetual evolution.

High Quality Research without Theory

As B. G. Wilson (1997) expressed so effectively, although one may question the pertinence of theory, theories resemble “our mental schemas, which help us make sense out of the world and provide a framework for behaving intelligently” (p. 22) (para. 7). Wilson demonstrated in his article that theories are formed through research. They help us “envision new worlds” (p. 23) (para. 12), and “develop the principles and procedures that constitute our common knowledge base” (p. 23) (para. 16). Through reflection, research, and knowledge, theory is formed. Research is not feasible without some kind of a theory as its base. The formulation of standards within theory contributes to the ideology of the field.

Nevertheless, as Wilson (1997) pointed out, “theories used to divide and exclude people” or those that are founded on “empirical science” (p. 27) (para. 44) rather than collaboration are not considering the advances that occur in Instructional Technology and its disciplines. Meaning
is ascertained through recognizing and acknowledging a “pattern of interrelationships” (p. 26) (para. 36) in particular cases, and its significance on society and meaning.

Ultimately, the debate between theories of positivism and post-modernism enhance the growth and productivity of a theory. Adaptation is necessary for the evolution of any theory, especially the ever-changing schemata of Instructional Technology. Communication, criticism, diversity, and alternative perspectives show we care about the field and its theories.

Research relies on theory, and theory depends on research. The coexistence of the two enhances the development of the field. As Wilson (1997) affirmed, reflection, inclusion, dialogue, awareness, consideration, and acknowledgment of diverse theories stimulate and challenge perspectives and contribute to the strength of a field.
References

