

The Definition of Instructional Technology

The definition of instructional technology has undergone several changes over the past few decades. The field has evolved from a focus on the audiovisual media to that of a systems process and most recently, to a focus on ethical practices intended to facilitate learning and improve performance (Reiser & Dempsey, 2007, p. 6).

In 1994, the Association for Education Communications and Technology (AECT) defined Instructional Technology as “the theory and practice of design, development, utilization, management and evaluation of processes and resources for learning” (Seels & Richey, 1994, p.1). The definition and tasks involved in each of the five domains is illustrated in figure 1.

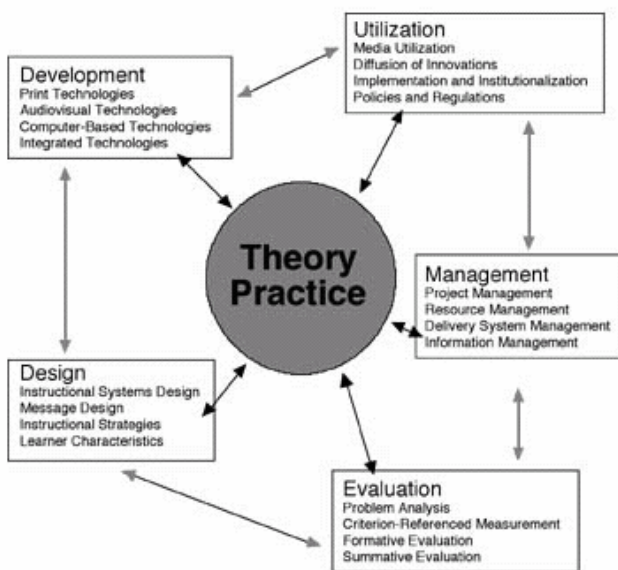


Figure 1: Domains of Instructional Technology

Adopted from: <http://www.aect-members.org/standards/figure1.jpg>

This definition stresses the professional practice of each domain based on the theories involved in the field. At the center of Figure 1 lies the foundation of scientific knowledge upon which all is based, theory and practice. A theory is an organized set of statements that serves as a way to explain or predict events (Reigeluth, 1999, p.33). Theories are generalizations based on years of research. In the field of instructional technology, instructional design theories “offer explicit guidance on how to better help people learn and develop” (Reigeluth, 1999, p. 5). Practice is “the application of theoretical knowledge to solve problems” (Seels & Richey, 1994, p.11). Each time we perform a task, we take the knowledge, learned through practice and add it to our base of knowledge and experience. With time and study, learned principles are translated into models, both conceptual, based on theory, and procedural, based on practice. Working models provide us with a guide for making decisions while designing instruction.

The field of instructional technology consists of five domains: design, development, utilization, management and evaluation. Although each domain exists independently, they are all interconnected in a nonlinear form. The five domains work together independently through a system process to bring about optimal outcomes.

Process is defined as a “series of actions or operations conducing to an end” (<http://www.m-w.com>). In the practice of instructional technology, the process is both systematic and systemic. The instructional systems design (ISD) process is systematic in that many models have been developed to give the designer a road map for making instructional design decisions. However, it is also a systemic process, meaning each part of the instructional design process (analysis, design, development, utilization or evaluation) is interrelated. Any changes made in one component affect the others. In this respect the five domains contain the scope for the pathway to instructional design; however, this path is not a linear one. For instance, materials in development are constantly in a state of evaluation and revision in order to improve the quality of the product.

Resources are defined as “a source of information or expertise” (<http://www.m-w.com>). Resources are not limited to equipment and materials such as computers, calculators or movies, but should also include human resources and supports such as teachers, information, budget, time and the training room itself.

The ultimate goal in any instruction or training is to improve performance, as evidenced by a “change in knowledge, skills or attitude” (Seels & Richey, 1994, p. 12). Instructional technology or design provides us with the process for completing this task, by making learning less difficult, well-organized and ultimately, successful (Morrison, Kemp, Ross, 2007, p. 2).