

Running Head: THE FIELD OF INSTRUCTIONAL TECHNOLOGY

Professionalism

Nikki Babineaux-Henry

University of Houston – Clear Lake

In partial fulfillment of the requirements for INST 5131

Assignment 7

Caroline M. Crawford

December 1, 2007

Abstract

Instructional technology and design has changed over time. Glancing back in history the definition of instructional technology and designed has developed and improved. This paper will explain how instructional technology and instructional design has developed throughout the years. It will also give a brief history of how instructional technology has improved. The paper will be concluded with the organizations professional standards that align with my current career as a classroom teacher and the professional organizations and publications that support the field of instructional technology.

Instructional Technology Defined

Instructional technology has changed over time. According to Reiser and Dempsey (2007), “the roots of the field have been traced back at least as far as the first decade of the twentieth century” (p. 3). Definitions that focus on a systems approach tend to reach further back in history, while those definitions focused on sensory devices are relatively more recent. The field of instructional technology is constantly changing (Reiser and Dempsey, 2007). As a new student to the program, it is important to understand instructional technology and changes that can affect the future of the field. There have been several attempts throughout the years to define the field of instructional technology (Reiser and Dempsey, 2007). In 1977, the Association for Educational Communication and Technology (AECT) defined instructional technology according to Reiser and Dempsey (2007) in the following way:

Educational technology is a complex, integrated process involving people, procedures, ideas, devices, and organization, for analyzing problems and devising, implementing, evaluating, and managing solutions to those problems, involved in all aspects of human learning (p.4).

Within a twelve year period, many developments affected the field of instructional technology (Reiser and Dempsey, 2007). There were many changes that occurred along with technology advancements in the mid 1990's. The basis for design practice shifted from behavioral theory to cognitive and constructivist learning theories. According to Reiser and Dempsey (2007) in 1994

AECT published a book in which defined instructional technology in the following way:

Instructional Technology is the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning (p.5).

According to Wikipedia (2007) today, instructional technology is a growing field of study which uses technology as a means to solve educational challenges. The two area of focus in the field of instructional technology include a systems approach and sensory technologies. The current definition focuses on professional conduct and facilitating learning (Reiser and Dempsey, 2007). To summarize the definition of instructional technology today, Reiser and Dempsey have a one sentence definition in my opinion that is simple and to the point. It reads:

Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using, and managing, appropriate technological processes and resources (p.6)

As an educator in the classroom, my definition of instructional technology is using a variety of instructional resources in combination with technology tools to make learning more meaningful for students. My definition of instructional technology will continue to development as I learn more about the field of instructional technology and advance my career toward training and development. While working in the instructional technology program students

must incorporate and understand instructional design which is one of the essential elements in the instructional technology field.

Instructional Design Defined

According to Reiser and Dempsey (2007), “instructional design (ID) is a systematic process that is employed to develop education and training programs in a consistent and reliable fashion” (p.11). As an educator, procedures (how things are being done) and consistency are very important. My definition of instructional design is a process that is organized with meaningful training and an organized curriculum that facilitates learning. When viewing ID, “the systems approach implies an analysis of how its components interact with each other and require coordination of all design, development, implementation, and evaluation activities” (Reiser & Dempsey, 2007 p.11). Instructional design can be defined as a process, discipline, science or reality. Defining ID as a process, according to Rosalind (2007) “is the systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction. ID is the entire process of analysis of learning needs and goals and the development of a delivery system to meet those needs. ID includes development of instructional materials and activities; and tryout and evaluation of all instruction and learner activities” (section 1). The three purposes of the instructional design process “is to identify the outcomes of the instruction, to guide the developing the instructional content (scope and sequence) and to establish how instructional effectiveness will be evaluated” (Walsh, 1992, section1). According to Reiser and Dempsey (2007), many training programs experience chaos due to individuals

not understanding what is expected. As a trainer, individuals must ensure that the instructional design is effective and meaningful.

History of Instructional Technology

Reflecting back over the years, there have been significant changes in instructional technology. The use of media for instructional purposes has been traced back to as early as the 1900's. Media, stereo graphs, slides, films, study prints, charts, and other instructional materials, in the 1900's were housed in school museums which served as central administrative units for visual instruction (Reiser and Dempsey, 2007).

In the late 1920's and early 1930's technology continued to advance with radio broadcasting, sound recordings, and sound motion pictures which sparked an interest in instructional media (Reiser and Dempsey, 2007). In the 1950's the increased interest in television became the medium of delivering instruction (Reiser and Dempsey, 2007). However, this mode of instructional technology was not widely adopted mostly due to "teacher resistance to the use of television in their classrooms, the expense of installing and maintaining television systems in schools, and the inability of television alone to adequately present the various conditions necessary for student learning" (Reiser and Dempsey, 2007, p.21).

"The personal computer era began in 1982, signaling another paradigm shift, from analog media to digital media" (AECT, 2001) Computer assisted instruction became popular even though they were utilized for training at a much earlier date (Reiser and Dempsey, 2007). Surveys revealed in 1995 that computers had a minimal impact on instruction. Computers were mainly used in

elementary schools for drill and practice. (Reiser and Dempsey, 2007) As a high school student in the 1990's I can relate to computers having a minimal impact on instruction. I remember taking a keyboarding class where the teacher made students use the old fashion typewriters instead of the new computers that the school purchased for students to use. I did not actually use the internet until my first year in college. With recent developments in technology, the internet became very popular especially in training in business and industry.

As I glance back in history and look at where we are currently with technology development and advancement, I feel that the future of instructional technology will continue to grow and develop. As an educator, I will continue to look for new and exciting technology tools to help engage my students and make learning meaningful for them. We will not be successful in reaching our students if we as educators do not remain abreast with all the technology advancements that our students have access to on a daily basis.

Professional Standards

As a high school business teacher, it is imperative that I remain abreast with current technology in order to engage my students and make learning meaningful for them. The professional organization standards that align with my current career are the National Educational Technology Standards for Teachers (NETS). As a business teacher, I must stay abreast of current technologies to engage my students and make learning meaningful which align with standard I. I also attend the Texas Computer Education Association (TCEA) conference every year along with other professional development workshops to

improve instruction in my classroom with technology. This aligns with standard V productivity and professional practice. I also help teachers on my campus integrate technology in their classrooms which also helps me as a classroom teacher remain abreast with advances in technology.

In the next five years I want to transition to training and staff development for my school district. I will be responsible to assisting teachers around the district successfully integrate technology in their classrooms. My professional standards will still align with the NETS because I will be helping teachers integrate technology in their classrooms to stay abreast with current technology (I), plan strategies to manage student learning in a technology-enhanced environment (II), apply technology to develop student higher order thinking and creativity (II), use technology improve instructional strategies and maximize student learning(IV), use technology to communicate and collaborate (V), and apply technology resources to empower learners from diverse backgrounds (VI) which aligns with Standards I-VI of the NETS.

Instructional Technology Professional Organizations

The field of instructional design and technology has several professional organizations (Reiser and Dempsey, 2007). As a graduate student in the instructional technology program and a professional in the field of education, it is very important to remain abreast with current trends and information to advance my career. “Most professional organizations have a clearly stated mission or focused geared toward meeting the needs of a particular segment of the professional community” (Reiser and Dempsey, 2007, p.262). The organizations

I found most interesting that relate to my profession as a teacher and align with my future career in training and development are discussed below:

- American Educational Research Association (AERA) - works to improve education by encouraging scholarly inquiry and by promoting the dissemination and applications of research results.
- American Society for Training and Development (ASTD)-provides leadership to individuals and organizations that are committed to workplace learning and performance.
- Association for the Advancement of Computing in Education (AACE) - dedicated to the improvement of knowledge, theory, and quality of learning and teaching with information technology.
- Association for Educational Communications and Technology (AECT) - allows professional that are interested in the use of educational technology and it application to learning.

Instructional Technology Professional Publications

Professional publications are a great tool for professional to remain abreast with current and past trends that affect the field of instructional technology. Professional publications should be selected in a manner similar to professional organizations (Reiser and Dempsey, 2007). The publications that I found most interesting that relate to my profession as a teacher and align with my future career in training and development are discussed below:

- Contemporary Issues in Technology and Teacher Education (CITE) is an online, peer reviewed journal, established and jointly sponsored by five professional associations.
- Eduactional Technology is a professional magazine that publishes non-refereed articles interperiting research and practical applications of scientific knowledge in education and training environments.
- Journal of Computing in Teacher Education (JCTE) is a refereed journal that publishes pratical applications, research reports, and theoretical articles of interest in teacher educators with computer and technology education for preservice and inservice teachers.
- TechTrends publishes peer reviewed articles that focus on practical applications of technology in education and training.

Conclusion

Even though instructional technology has faced several challenges, in my opinion the field still has room to grow and develop to meet the needs of learners. As technology continues to advance, there will be more improved and innovative techniques that will allow the field of instructional technology and design flourish. As educators and trainers we must remain abreast with the current and changing trends and issues in instructional technology and design. I look forward to learning more about the field of instructional technology as well as applying what I have learned to my future career in training and staff development.

References

AECT Association for Educational Communication and Technology (2001).

AECT definition and terminology committee. Retrieved August 29, 2007,
from AECT members Web site:

<http://www.aect-members.org/standards/knowledgebase.html>

Association for Educational Communications and Technology (2001). *Association for*

*Educational Communications and Technology: In the 20th Century: A Brief
History*. Retrieved August 29, 2007, from the AECT Web site:

<http://www.aect.org/About/History/>

National Education Technology Standards (NETS), (2007). *NETS for Teachers* .

Retrieved August 30, 2007, from Web site:

<http://www.iste.org/inhouse/nets/cnets/index.html>

Reiser, R.A. & Dempsey, J.V. (2007). *Trends and issues in instructional design and
technology (2nd Edition)*. Upper Saddle River, New Jersey: Merrill Prentice Hall.

Rosalind, K. (1996). *Definitions of Instructional Design*. Retrieved August 28, 2007, from
University of Michigan: School of Education website:

<http://www.umich.edu/~ed626/define.html>

Walsh, J. (1992). *Principles of Instructional Design* (4th Edition.). Retrieved August 28,
2007, from University of Alabama: Office of Curriculum and development

website: <http://www.uab.edu/uasomume/cdm/id.htm#Three>

Wikipedia (2007). Instructional technology. Retrieved on August 29, 2007 from:

http://en.wikipedia.org/w/index.php?title=Instructional_technology&oldid=134296492