Chapter 1.9
Innovative Instructional Strategies with the Use of Technology for Adult Learners

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ABSTRACT

Technology incorporation adds another dimension to instructional design because it requires that the adult educator be skilled enough to design and use technology-enhance instruction as well as diagnose learners' skill levels and predispositions. Because each media has its unique combination of features, instructional designers should select and create technology resources carefully to best address the learning task and learner preference. Technology-enhanced communication methods are now available for sophisticated instruction and interactive learning among students, educators, and resources: Web 2.0, egaming, video conferencing, and course management systems, as examples. Furthermore, technology-based accommodations can address access to resources as well direct instruction for people with disabilities. In any case, technology-infused instruction requires material and moral support by the organization's decision-makers.

INTRODUCTION

The world is changing faster than ever because of social and economic factors, which have been significantly impacted by technology. The world seems smaller as technology has connected people globally; resultantly, economic entities are increasingly interdependent, and cultures may clash more often.

As individuals and entities try to manage change from the outside, they need to retool themselves. Adults can expect to change jobs and even careers several times in their lifetimes. Since their daily lives are also impacted by changing environments, adults will need to also adjust

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personal behaviors as well. Formal and informal education is needed now more than ever.

Since 85 percent of twenty-first century jobs will involve technology, it makes sense to incorporate technology in adult instruction. The intrinsic properties of technology obviously impact learning with its potential combinations of text, image, sound, and movement. These elements enable learners with varying learning style preferences to engage meaningfully with different aspects of information. In addition, the hyperlink feature of the web, electronic resources, and tools enable users to control their learning as they choose whether to explore those links or to access information in a nonlinear fashion. Indeed, technology-infused instructional design fosters learner-centered experiences; instructional designers basically create the environment or structure for optimal learning.

THE CONTEXT OF INTEGRATING TECHNOLOGY INTO INSTRUCTION

The instructional design process itself exists within the context of the organizational entity that is sponsoring the learning experience. Therefore, for technology to be incorporated effectively into adult education, organizational leadership needs to have a shared vision for technology integration and the means to allocate resources (such as material, facilities, infrastructure, and technical support) to that end. Policies also need to be put in place that support technology-enhanced adult education; aspects might include acceptable use, skills baselines, professional development and incentives, hardware specifications and refresh cycles, and equity issues. In short, the entire enterprise needs to have the motivation and the capacity to incorporate technology into its system (Roblyer & Doering, 2009).

The organization also needs to be realize that learning *about* technology differs from learning *with* technology; the former views technology as an end in itself while the latter views technology as a means. With technology as an end, systems and organizational goals are the central concern, and advanced project management skills are needed; the entire enterprise is changing. When technology supports learning, job performance is the focus, and the training department controls the process to the large extent; the organization as a whole is not in flux (Main, 2000).

Most adult education incorporates technology for the latter reason. Nevertheless, too often technology is added on top of existing instruction, like icing on the cake, rather than transforming instructional design. Some of the changed elements include: the locus of control from teacher to learner, just-in-time learning, emphasis on resource-rich inquiry, and heightened interaction. In fact, one of the first questions in the instructional design process that needs to be answered is: "Should technology be used?" The following lists contrasts deciding factors.

Incorporating technology is appropriate when:

- Accessing remote digital resources
- Addressing sensory modes via simulations and other knowledge representations
- Building on or repurposing existing digital resources or instruction
- Encouraging repeated practice (e.g., drills for rote learning)
- Supporting anytime/anywhere learning
- Recording and archiving communication and effort

Incorporating technology is not beneficial when:

- Focusing on in-house, non-technical resources
- Face-to-face personal contact is important
- Providing one-time customized training
- Other resources and means are more effective