

Chapter 12

Technology–Enhanced Information Literacy in Adult Education

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ABSTRACT

Economic and social activities rely on information and communication technologies. Information literacy forms the basis for lifelong learning. Particularly with the advent of electronic information, adult learners need to manage technologies knowledgeably. Information Literacy Learning Models show learners' interaction with information, and inform instructional design. Technology can inform and enrich this process, including supporting anytime/anywhere learning. Technology-enhanced adult education that addresses information literacy has to deal with several issues: e-resources, instructor acceptance and knowledge of technology, collaboration, and interactivity. Future trends are also mentioned.

INTRODUCTION

The need for critical use of information is more important than ever. The 1991 SCANS report notes information location and manipulation as vital skills for today's employees. In a digital world where the amount of information doubles every two years, adults need to evaluate resources carefully and determine how to use relevant information to solve problems and make wise decisions.

Furthermore, it is no longer principally an issue of getting information: it's getting the right

information at the right time to do things right and to do the right things. Economic and social activities rely on information and communication technologies. Knowledge is ever-flowing, and social interactions seem web-like (Pink, 2006). As the world seems to grow smaller, due to increased communication and population transience, the global scene reflects a more interactive mode relative to information. Even when a nation appears to act alone to seem isolationist, it cannot survive in that manner because the world is so interdependent. This changing informational environment affects adult education, and also emphasizes the need for

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lifelong education to prepare today's workforce to deal with an uncertain tomorrow.

BACKGROUND

To understand how adult education can improve learning through technology-enhanced information literacy, underlying definitions of the contributing factors need to be explained. These factors result in an interdependent approach to adult learning that recognizes today's technological society.

Defining Information Literacy

One of the goals of education is to help individuals become functionally literate, which involves a continuum of skills that enables students to be able to *do* something: procedural knowledge. Students need to access, comprehend, and respond to information. In the United States, reading and writing ability are core competencies in that process. However, other skills such as numeracy and visual acuity are also implicated because knowledge can be represented in so many forms. Increasingly, other countries combine information and communication literacies under the heading ICT (Information and Communication Technology).

Information literacy, as defined by the Association of College and Research Libraries (ACRL), includes a set of abilities "requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. Information literacy also is increasingly important in the contemporary environment of rapid technological change and proliferating information resources." (ACRL, 2000, p. 2) ACRL continues: "Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations,

become more self-directed, and assume greater control over their own learning." (p. 3)

At one time, these competencies were typically labeled "library skills" or "research process skills" but they now encompass much more than a physical library, incorporate many more formats of information, and address the issues of generating new knowledge as much as verifying and applying existing knowledge. Particularly with the advent of electronic information, information literacy also deals with social learning and responsibility.

In this light, information literacy facilitates a major facet of adult education: providing students the means to become critical lifelong learners. Indeed, as students develop and practice these skills, their learning increases across subject domains. Testing a hypothesis can transfer to justifying a thesis statement, for instance. Additionally, information literacy competency standards provide a framework for assessing student achievement.

Information Literacy Learning Models

Knowing how adults learn affects the kind of instructional model that instructors use to optimize the experience. Fortunately, information processes tend to reflect the same values as adult learning: engaged learning, opportunities for choice, personal construction of meaning, sharing of findings, and building knowledge.

It should be noted that information literacy and the processes for locating, assessing, and using information should not be confused with information processing theory. The latter deals with mental operations, focusing on physiological phenomena: sensory reception of stimuli, coding, and memory. Typically, information processing theory is associated with cognitive learning theory. The models that best fits within the construct of adult learning is situated cognition flexibility in which one begins on the periphery and observes critically; knowledge is constructed socially.

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