

Chapter 7

The Affordances of Second Life for Education

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ABSTRACT

In this chapter, the authors discuss some of the possibilities of Second Life for education from both theoretical and practical standpoints. First, they outline a general theory of meaningful learning using technology that can be applied to Second Life as well as other technologies. Then, the authors discuss some of the particular aspects of Second Life that might support meaningful learning. Next, the authors outline some of the practical realities, or obstacles, that exist to using it in the environment. Finally, they make some recommendations about how educators who are interested in exploring the possibilities of Second Life might proceed. While the chapter focuses its discussion on Second Life, the theoretical framework and even many of the examples apply to any virtual world that allows users to build persistent objects and utilize scripts.

A THEORY OF MEANINGFUL LEARNING USING TECHNOLOGY

For school and district administrators to support the increased use of technology in schools, they must be convinced that the costs of these technologies are offset by the benefit of increased student learning. However, the standardized tests typically used by schools to measure student learning do not often measure the kinds of learning that are

fostered by the best uses of technology. Rather, such tests usually measure basic skills such as decoding, vocabulary, grammar, arithmetic, reading comprehension, reading simple data off of a graph, and knowing the essentials of cultural literacy. While technology can be used to reinforce these basic skills—through the use of drill and practice software and arcade-like educational games—the real benefits of using technology are found in increased higher-order thinking skills, complex situated understandings, and socially-desirable dispositions. These outcomes are harder

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to achieve and harder to teach, and although they are highly valued in contemporary economies and by subject-matter experts, and they seem essential for citizens to participate fully in democratic society, they rarely show up on standardized tests (Grabinger & Dunlap, 2002). Indeed, studies have shown that the introduction of new technologies into schools may result in short-term *decreases* in standardized test scores, as teachers become familiar with new pedagogies and time is diverted from basic skills (Dusick, 1998; Kleiman, 2000). The profound and potentially positive long-term effects of increased integration of technology into teaching and learning may not show up until a few years have passed.

The inability of standardized tests to capture the long-term higher-order learning outcomes presents a conundrum to teachers and administrators who seek to transform education so that it more effectively produces the kinds of graduates that our society seeks. It may be difficult to justify the costs—in terms of both money and time—of introducing new technologies and new teaching methods when the public is focused so narrowly on test scores. This is especially true in school districts, for example in the United States, that are not currently making adequate yearly progress on state achievement measures. Wealthier school districts, which easily meet state norms, are freer to experiment with new ways of teaching and learning that offer the possibility of producing new kinds of student learning. Schools in lower socioeconomic status communities are often forced to stick to the “tried and the true” focus on low-order outcomes in the effort to meet standards. Because of this dilemma—and because it disproportionately handicaps students in lower socioeconomic communities—it is important to find new ways to report school effectiveness that show the true benefits of technology integration into teaching and learning. In short, what are needed are new forms of assessments that capture higher-order learning outcomes (Haertel & Means, 2003; Johnston and Cooley, 2001).

The pathway to new forms of assessment is a long one, but many steps have already been taken. First, the higher-order outcomes that are considered valuable in the contemporary economy, by subject-matter experts, and to strengthen our democracy needed to be identified. The 1990s was a period of considerable activity in this area, with the production of a series of reports by blue-ribbon panels on what the new outcomes of schooling should be. One of the most influential was the US Department of Labor Secretary’s Commission on Achieving Necessary Skills (SCANS), which identified the skills, knowledge, and dispositions needed by workers in the new global economy (US Department of Labor, 1990; 1991). The SCANS reports focused on such outcomes as the ability to work in teams, learning how to learn, problem-solving and sense-making, and meta-cognitive skills such as paying attention to the consequences of what one is doing. The report concluded that schools need to develop skills in resource management, information management, social interaction, systems behavior and performance, human and technology interaction, and affective skills (such as attitudes, motivation, and values).

The kinds of skills that are emphasized in the SCANS list are very different from the traditional notion of “basic skills”. What’s more, the SCANS commission referred to new theories of learning emerging from cognitive science to argue that it is not necessary to teach basic skills *before* students can learn higher-level skills. Rather, *basic skills are best learned in the context of participation in authentic tasks requiring active inquiry and problem-solving*. The best learning occurs not when students act as passive recipients of skills and knowledge that are presented to them wholly formed, but when they are given opportunities to construct their own knowledge, invent possibilities, and solve complex problems. Further, students learn best when they work in teams or groups. Basic skills are learned as needed as they are applied in the processes of seeking information, discussing

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