

Learning by Doing

EXPERIENTIAL LEARNING

Learning that occurs by the direct involvement of the learner in the subject matter being learned (that is, learning by doing).

Some learning takes place by actually engaging in a new or different activity. Often referred to as **experiential learning**, this learning occurs by the direct involvement of the learner in the subject matter being learned—learning by doing, in other words.⁶⁰ Consider, for example, how people learn to be air traffic controllers. They, of course, can read reference books on air traffic patterns, study Federal Aviation Administration rules and regulations, learn how to communicate with pilots who are flying planes, and study the configurations of different airports. However, if they only rely on these kinds of activities, they will never be an effective and safe air traffic controller. What's missing? Learning by doing. In order to master air traffic controlling, it is essential that prospective controllers learn their jobs by doing them. Clearly, it would be too dangerous for them to learn how to be an air traffic controller while directing real traffic in airspace. But they can and do learn by performing realistic simulations of actual air traffic controllers' jobs using the same equipment they will be using on the job. Similarly, the training new drivers receive at Integrad described in the opening case learn how to safely and efficiently drive UPS trucks and deliver packages by performing simulations and driving UPS trucks and making deliveries in Clarksville.

Learning by doing is an important component of many kinds of jobs and occupations ranging from landscape architecture and nursing to sports, acting, and surgery. Moreover, learning by doing it not just important in order to be able to be able to execute technical, physical, or artistic tasks well—it is also important for interpersonal skills. Recall how trainees at UPS's Integrad learn how to work as part of a team from the opening case.

Continuous Learning through Creativity

CREATIVITY

The generation of novel and useful ideas.

Creativity is the generation of novel and useful ideas.⁶¹ By *novel* we mean ideas that represent new ways of thinking. By *useful* we mean ideas that have the potential to contribute to the performance and well-being of individuals, groups, and organizations. When people are creative, they are engaged in continuous learning, whether it is to discover a vaccine for the HIV virus that causes AIDS, develop a new design for kitchen cabinets, or successfully revive a classic car model such as the Volkswagen Beetle. The idea of easy-to-use stick-on notes (Post-it NotesTM), the idea of offering healthy foods like salads in fast-food restaurants such as McDonald's, and the idea of flexible work schedules—all are examples of the results of creativity. Creative ideas such as these are novel and useful responses to problems and opportunities and result from continuous learning. Continuous learning through creativity is key to remaining competitive in today's global economy.

Innovation is the successful implementation of creative ideas.⁶² The 3MTM Corporation innovated when it successfully manufactured and marketed Post-it NotesTM; Apple Computer innovated when it designed and built the first personal computer, and it continues to innovate today with its new product offerings and new ways to enhance consumers' shopping experience in its Apple Stores.

INNOVATION

The successful implementation of creative ideas.

The Creative Process

Each instance of creativity seems unique because an individual or group has come up with something that seems totally new or different. The creative process, however, usually entails a number of learning steps (see Exhibit 5.4).⁶³ The first two steps are recognizing a problem or opportunity and gathering information. Sometimes the first step entails learning that something people think is a problem really isn't. Decades ago, some well-intentioned, but misinformed, educators thought it was a problem to be left-handed; so when left-handed children were learning how to write, they were urged to use their right hands no matter how awkward or difficult it was. Sometimes the problem needs redefining, in other words. Tooth decay in toddlers, for example, is not so much a function of what toddlers eat and drink but how and when they do it. (The real culprit is drinking from

EXHIBIT 5.4

The Creative Process

