

Using Self-Efficacy Theory as a guide for instructional practice Wynn Shooter

Introduction

Well-tested theories are useful in guiding instructional practice because they attempt to explain and predict behavior. Successful outdoor educators often adopt theories from parent disciplines in the behavioral sciences because such theories offer principles and techniques that can improve teaching practices and promote positive learning experiences for students. One theory that can be particularly useful to outdoor educators is Bandura's theory of self-efficacy. Bandura suggests specific techniques that teachers can use to help students feel empowered to attempt new skills or challenging tasks. Outdoor educators may find that some students are reluctant to take the risks associated with learning outdoor skills. Often, such students are afraid of unpleasant physical or social consequences of failure to perform the skill correctly. Self-efficacy theory provides a basis for helping such students succeed. This article introduces relevant aspects of Bandura's theory of self-efficacy with a focus on specific principles for teaching and learning outdoor skills.

Theory of Self-efficacy and its learning principles

Self-efficacy theory is grounded in understanding the relationship between one's beliefs and one's willingness to engage in behaviors necessary to successfully accomplish a task. As a social learning theory, self-efficacy theory offers a notably comprehensive understanding of the learning process, but also provides specific insights that instructors can use to guide students towards specific skills development. As a self-regulation theory, self-efficacy depends on the assumptions that motivated learners are more likely to succeed than less motivated learners and that goal setting is of primary importance when attempting to increase learning (Driscoll, 2005). Self-efficacy theory addresses such notions by focusing on the learner's beliefs as a means of self-regulation (Bandura, 1997).

At its core, the notion of self-efficacy is about an individual's beliefs and actions. This is clear in Bandura's definition of the construct, "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). Self-efficacy is comprehensive in the fact that it addresses cognitive, affective, and behavioral processes of the learner. It attempts to explain the process that learners undergo as they confront new challenges by accounting for judgments, evaluations, and appraisals made by the learner.

According to Bandura, (1997) learners make assessments of the ability (skill) needed to confront a given challenge and they assess whether or not they possess the ability to meet the challenge within the given context successfully. Bandura refers to this as identifying *outcome expectancies* and *efficacy expectancies*. In other words, I must believe that I possess the skills (efficacy expectancies) and that I can successfully employ those skills (outcome expectancies). Merely knowing or possessing ability is insufficient; one must also maintain the belief that he or she can successfully execute the skill in a

given situation. The learner's evaluation of his or her ability to meet the challenge successfully will influence the level of effort given to the task and the willingness to persist. The self-regulation of thought, motivation, control, and affective and physiological states are all components of efficacy beliefs (Bandura, 1997; Savell, 1987).

For example, you might have spent a week working with a student who has developed a solid kayak roll in moving water, can ferry well in swift moving water, can read whitewater, and makes crisp, decisive eddy turns. However, on arrival to the first class III rapid at the end of a week-long course, the student decides to walk around the rapid. While the student had access to the skills needed to complete the task, he chose not to accept the challenge. This is a good example of how self-efficacy beliefs function. He had the skill, but did not have the belief that he could accomplish the task. Eventually such beliefs will influence one's willingness to exert effort in the task such that interest in the activity wanes.

Four Sources of Self-efficacy

Self-efficacy has gained considerable popularity and one aspect that has likely contributed to the success of this theory is its intuitive appeal. Clearly, our thoughts and beliefs influence our behavior. Bandura has explained this phenomenon and argued that by increasing a learner's self-efficacy, the learner will be more motivated, engaged, and successful. The ability to apply the theory depends on one's understanding of four sources of self-efficacy: enactive mastery experiences, vicarious experience, verbal persuasion, and physiological and affective states.

Enactive mastery experiences (also known as "performance accomplishments") are psychological states through which a learner organizes his or her own set of beliefs regarding ability from a variety of sources. This is the most salient of four sources of self-efficacy because it provides a considerable amount of feedback for the learner. This source recognizes and identifies many of the components that lead to high levels of self-efficacy. Important aspects of this source include context specific beliefs about success, failure, and performance. It considers the relevance and importance of goals, selective self-monitoring, and recognizes that each learner brings his or her own background, self-concepts, self-knowledge, and personality to the learning experience. Awareness of the later directs educators to take steps toward knowing and understanding the learner.

Past failure or success influences one's likelihood to believe that one will succeed or fail at a given task. It is important to note that performance alone is insufficient because learners cognitively evaluate success in response to the aid they received, the unique circumstances, and their own evaluation of patterns of success and failure. Failures can undermine efficacious beliefs unless the educator handles them correctly.

The theory offers a variety of ways to overcome the negative influence of failures on self-efficacy. One way is to convince learners that they are succeeding. This will support *selective self-monitoring* which occurs when the learner's beliefs of personal self-efficacy are noticed and remembered over non-efficacious beliefs. Do not confuse selective self-monitoring with lying to students about their progress, instead focus on reminding them of their successes. Providing appropriate *attainment trajectories* is another way to overcome the negative influence of failures by convincing learners of the difficulty of a task and providing realistic goals. This is an effort to communicate the

importance of perseverance. Likewise, successes that come too easily are not beneficial because they create expectations of realizing results with ease, then, when trouble and difficulty arise, the learner is easily discouraged. The educator can overcome this by showing comparable others struggling with the task. This is a form of *vicarious experiences*.

Modeling success is an effective means of promoting self-efficacy because people judge their abilities by comparing themselves to individuals that they believe are like themselves. Understanding this aspect of the phenomenon directs educators to use the success of other participants to convince the learner of the possibility of success. Techniques to promote positive vicarious experiences include imagery, which more specifically, could include the use of visualization techniques or filming the learner enacting various steps of a desired skill and reviewing those, pointing out each specific success.

The third source of self-efficacy, *verbal persuasion*, is simply encouraging the learner. This practice further supports efficacious beliefs. Saying to a learner, “good job” or “nice work” does not qualify as verbal persuasion. Instead, the educator should give specific feedback and encouragement. Examples include statements like, “good, you are holding the paddle properly” or “your forward stroke is well executed because you are keeping the paddle vertical and pulling the boat forward rather than pushing the water with the paddle.” Another important component of verbal persuasion is that the learner must perceive the provider of the encouragement to be a credible source. A final way to provide verbal persuasion is to remind the learner of previous success.

The fourth and final source recognizes the influence of *physiological and affective* states (a.k.a. *emotional arousal*). If a learner is discouraged, frustrated, or dejected, then he or she will be distracted and less likely to succeed. The educator can attempt to account for this by capitalizing on the novelty of the experience, remaining upbeat and positive, using humor, and fondly remembering past success.

From task specific to generalized self-efficacy

Self-efficacy theory guides instructional practice by explaining human behavior related to motivation, self-regulation, success, and the accomplishment of tasks. Instructors are encouraged to focus on task-specific and sequential student achievements, in hopes of generalizing from mastery of specific tasks to broader and more complex outcomes. Such outcomes may be specific to a particular ACA course, but instructors may also be interested in the transfer of learning into actions that are useful in the daily lives of participants. For example, challenges that students overcome during outdoor education experiences may help them take more calculated risks, plan more effectively, work more effectively as members of teams, or become better decision makers in their personal and professional lives.

Self-efficacy researchers have actively pursued the notion of self-efficacy generalizing from a specific task to a broader and complex set of outcomes. Wise (1999) conducted a study that provides a good example of how task-specific self-efficacy can transfer to similar tasks. Wise tested participants’ abilities to transfer task-specific self-efficacy across settings. Participants were involved in rehabilitation following severe spinal cord injuries. The participants needed to learn a number of activities of daily-living

skills related to their disability. To assist them in developing these skills, Wise designed a six-lesson curriculum that utilized a weight-training program. Throughout the weight-training program, the researcher provided verbal persuasions that supported the participants' beliefs about their own abilities to transfer lifting weights to accomplishing daily tasks at home. For the experimental group, Wise added messages designed to facilitate transfer of the self-efficacy from the weight room to the activities of daily living that participants needed in their home environments. For example, while a participant was curling an 8-pound dumbbell Wise reminded that participant that the dumbbell weighed the same as a gallon of milk. The implementation of these enactive mastery experiences facilitated the generalization of self-efficacy more for those in the experimental group than for those in the control group.

As Wise demonstrated, educators can teach skills in ways that facilitate transfer of the skills to new contexts. It is important to remember, however, that the foundation for generalized self-efficacy was the performance accomplishments that occurred during individual learning encounters involving the instructor and the student. In the absence of successful performance accomplishments during these individual lessons and encounters, positive efficacy and outcome expectations may not have occurred and may not have generalized to the home environment. Given successful performance accomplishments, long-term results may naturally follow from repeated short-term successes. Such results may be enhanced through specific verbal messages aimed at generalizing self-efficacy. Essentially, effectiveness lies in the collection of successful, individual lessons and the ability of the instructor to frame such encounters in ways that lead to efficacious, transferable beliefs of learners.

Conclusion

Self-efficacy theory is useful in guiding educational design and instructional practice because it offers several specific explanations of how our beliefs about our ability to accomplish a task influence the effort we expend and ultimately our level of success. In order to apply self-efficacy theory to instructional design and teaching outdoor skills, one should first identify the specific desired *outcomes* and then consider how to instill the *beliefs* within students that they can accomplish these outcomes. In the case of teaching outdoor skills, instructors should provide a clear and realistic picture of desired outcomes by assisting each student to gain an understanding of how to set goals for her or his own individual success. With realistic, individualized goals established, an educator can then support skill acquisition by utilizing Bandura's four sources of self-efficacy, which have been outlined within the brief review of the theory provided above. Transfer of the skills can be supported by using language that assists the students in making connections between the tasks in which they are succeeding and similar tasks that they will undertake in their daily lives.

References

- Bandura, A. (1997). *Self-Efficacy: The exercise of control*. NY: W. H. Freeman and Company.
- Driscoll, M. P., (2005). *Psychology of learning for instruction* (3rd Ed.). Boston. MA: Pearson Education.

- Savell, K. (1986). Implications for therapeutic recreation leisure-efficacy: Theory and therapy programming. *Therapeutic Recreation Journal*, 1, 43 - 53
- Wise, J. B. (1999). Effects of a curriculum to generalize self-efficacy from weight training exercise to activities of daily living in adults with spinal cord injuries or spinabifida. Unpublished doctoral dissertation, University of Utah, Salt Lake City.