Social cognitive theory

Social Cognitive Theory Social Cognitive Theory Albert Bandura's social cognitive theory is the framework for learning, based on the relationship between behavior, personal factors, and factors in the environment (Institute for Dynamic Educational Advance). Factors for social cognitive theory are based on a social or physical environment. Social environments encompass friends, colleagues, and family. Physical environments could run the gamut as vast as a particular food, securing a room size, room temperature, consideration of classroom setting, or an e- learning classroom online. The social cognitive theory explains the process functions of humans and aspects of emotional behaviors. In understanding these behaviors, the process of understanding behavioral change becomes clearer. According to Burney (2008), this cognitive process provides a backdrop for humans to observe their environment and others, using the information gathered to self-regulate their functions. Bandura introduced self-efficacy as the center of social cognitive theory. As one of the most studied topics in psychology, self-efficacy is one's own belief in their outcome on succeeding in any given situation, based on a person's belief system of thinking, feeling, and the person's response or behavior (University of Twente, 2010). As populations have become more diverse, the global educational area has grown to encompass more students that are technology-rich (Gunter, 2007). As institutions of higher learning seek additional ways to provide and improve upon existing educational offerings, social cognitive theory is used as a means to improving learning and discovering ways to increase the learning satisfaction of students. This is critical for e- learning. Though technical advances and innovations are growing at a rapid pace, the drop-out rate among traditional students continues to rise (Gunter, 2007). The Impact of

Instructional Immediacy Gunter (2007) defines the impact of instructional immediacy as behaviors that contribute toward building relationships and feelings of closeness in both traditional and online classrooms. Gunter (2007) conducted a study, based on Bandura's social cognitive theory, to explore how the use of immediacy can improve cognitive learning while reducing student attrition. The study consisted of teachers participating in a 14-week online professional technology course. The studies outcome showed how various interactions using instructional immediacy behaviors increased student motivation. Consistent with the social cognitive theory, online status incentives, such as frequent feedback, and social interaction were incorporated into the study to build a sense of community among the teachers, thereby resulting in improved self-efficacy of the students. Self-Efficacy and Achievement in Online Mathematics Academically, mathematics was one of the first subjects to foster computer- based learning (Spence, 2007). Recent years have focused on e-learning in mathematics and its courseware effectiveness. Models such as the teleological theory focus on the group, whereas the social cognitive theory focuses on the individual. Student self-efficacy—how a student thinks about his academic abilities — has gained in research attention and is being used to predict academic achievement in mathematics. Linked to self-concept, high achievement goals, and optimism, self-efficacy is used by confident individuals to help them persist against obstacles by using coping mechanisms and managing their learning. Another research using the social cognitive theory to examine online mathematics (Spence, 2007), used 88 students from a traditional environment and another 76 students from an online environment. Significant differences were found among the traditional and online

classroom students, including mathematics grades, age, engagement, and achievement. If the age difference was controlled, all other factors remained at significant differences. The researchers concluded that a phenomenon of lowered belief systems existed among the online students, causing them to score lower. The researchers cited the students may have chosen online studies because of their lack of ability and were too embarrassed to reveal that to an instructor in a traditional classroom, so chose the online class method. Students with higher self-efficacy showed greater task engagement. Using a six point Likert scale (Spence, 2007), the students were asked questions such as " How well can you motivate yourself to do mathematics homework? " Discoveries from the study revealed that mathematics self-efficacy contributed greatly to mathematic achievement. The study showed an imbalance in gender selection, which may have affected the outcome of the study. Of the 167 sample participants, only 37 were men . Student Satisfaction in e-learning Although research shows an increase in e-learning, educators continue to search for alternate delivery solutions because of the drawbacks experienced by students. E- learners may experience isolation due to lack of peer contact, lack of social interaction, and limited tutorial support (Jen-Her, Tennyson, and Tzyh-Lih, 2009). Using the social cognitive theory as a foundation, a study was proposed using the blended e-learning system (BELS) environment, which combines different learning styles with different delivery methods, such as web-based courses, tutorials, and online discussions. Picoli (Jen-Her, Tennyson, and Tzyh-Lih, 2009) expanded the learning environment, identifying five environmental factors for e-learning environments: classroom-based education including technology, content, interaction, learning model, and learner control. The researchers considered

the social cognitive theory to be relevant to BELS because of three factors: cognitive beliefs (self-efficacy), technology environment, and social environment (interactions). Effectiveness of the BELS system is affected by technology for the classroom, material content, and course information. The environment influences the student's acceptability to the BELS system. Summary Albert Bandura's social cognitive theory is the framework for learning, based on the relationship between behavior, personal factors, and factors in the environment (Institute for Dynamic Educational Advance). The social cognitive theory functions by a learner acquiring knowledge when one's personal characteristics and environment converge. Bandera introduced the concept of self-efficacy at the center of the social cognitive theory. Studies have been conducted showing how the use of immediacy can improve cognitive learning while reducing student attrition for e-learners (Gunter, 2007). Because of the populations increasing diversity, education is becoming a global arena with technology-rich students. Online is increasing, but the drop-out rate is still higher than traditional classrooms. Student self-efficacy—how a student feels about his academic abilities — has gained in research attention. Researchers now use self-efficacy to predict academic achievement in mathematics. Conclusion The need persists for continued study on aspects of the social cognitive theory in examining effectiveness of cognitive learning, particularly in the online learning environment. A broader use of the existing strategies could help lower student attrition rates. Educators need to be aware of factors fostering student achievement, and advise the students of needed skills needed to acquire and possess for success in the classroom. Educators need also be vigilant in seeking ways to foster and enhance student's self- efficacy beliefs for increased performance.

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