Theories and Researches of Self-regulation

Motivation is a crucial and worthy topic because it explains why people behave as they do. Motivation plays an especially important educational role in learning and human behavior. Behaviorists define motivation in terms of responses elicited by stimuli. From a cognitive perspective, motivation can be defined as the process of instigating and sustaining goal-directed behavior. Motivation is intimately linked with self-regulation. People who are motivated to attain a goal engage in self-regulatory activities they believe will help them. In turn, self-regulation promotes learning, and the perception of greater competence sustains motivation and self-regulation to attain new goals (Schunk, 1996).

Among Bandura’s (1977) numerous and significant articles and books, Social Learning Theory discusses human learning and self-regulation using a triadic perspective. While willpower theories were dominant in the history of education, Bandura suggested a triadic model of causation that posits a complex interplay between personal (cognitive-affective), behavioral, and environmental determinants. Through thoughts and actions, people are able to exert self-regulatory control over their level of functioning and the events in their lives. Social cognitive theory distinguishes learning from the performance of previously learned behaviors in that modeling refers to cognitive, affective, and behavioral changes that derive from observing models.

In terms of self-regulation in educational settings, Zimmerman (1998) defined academic self-regulation as the self-directive process through which learners transform their mental abilities into academic skills. It is not a mental ability (intelligence) or an academic skill (reading proficiency). The interaction of
personal, behavioral, and environmental factors during self-regulation is a cyclical process because these factors typically change during learning and must be monitored (Bandura, 1986; Schunk & Zimmerman, 1994). Such monitoring leads to changes in an individual’s strategies, cognitions, affects, and behaviors. Learning, therefore, is an open-ended process that requires cyclical activity on the part of the learner. Academic self-regulation is one of the most important psychological constructs for college students. The purpose of this paper is to investigate reliable and valid scales that measure academic self-regulation in Japanese college students. There are five scales of academic self-regulation to be investigated.

**Measurements**

**The Academic Motivation Scale.** The Academic Motivation Scale (AMS; Vallerand, et al., 1992) was developed by Vallerand et al. (1989) to assess students’ self-regulation styles as applied to academic activities. Vallerand et al. (1989) developed and validated the French scale, Echelle de Motivation en Education (EME). The EME was translated into English using appropriate cross-cultural procedures (Vallerand et al., 1992). The English version of the EME is the Academic Motivation Scale (AMS). The original version consists of seven subscales assessing three types of intrinsic motivation, three types of extrinsic regulation, and amotivation.

The French version of the EME represents a reliable and valid measure of IM, EM and amotivation in education. It has satisfactory internal consistency levels with a mean alpha score of .80 and a mean test-retest correlation of .75. Results of a confirmatory factor analysis (with LISREL) showed the seven-factor structure of the EME. The construct validity of the scale was supported by a series of correlational analyses among the seven subscales. The AMS has satisfactory levels of internal consistency with a mean alpha value of .81 and temporal stability over a one-month period of .79. The results of a confirmatory factor analysis (LISREL) confirmed the seven-factor structure of the AMS.

**The Situational Motivation Scale.** The Situational Motivation Scale (SIMS; Guay, Vallerand & Blanchard, 2000) is designed to assess the constructs of
separate scales, factor analysis did not support the construction of two
different scales. The Cronbach’s alpha for the self-regulation scale was .74.

**The Self-Efficacy Scale.** A measure of self-efficacy was developed in
Zimmerman and Kitsantas’ study (1997), which followed procedures outlined
studied the effects of goal setting and self-monitoring during self-regulated
practice of dart throwing on the acquisition of a complex motoric skill, the self-
efficacy measure included items regarding the participants’ capability to throw
darts. All items were introduced with the phrase “How sure are you that you
can score at least…” followed by these phrases: (a) 7 with one dart, (b) 5 with
one dart, (c) 3 with one dart, and (d) 1 with one dart. The students responded
using an efficacy scale that ranged from 10 to 100 points in 10-unit intervals.
Prior research (Zimmerman & Kitsantas, 1996) established the interitem
reliability of this scale at .89, according to Cronbach’s alpha test.

**The Self-Regulated Learning Strategies Interview Schedule.** The Self-Regulated
Learning Strategies Interview Schedule (SRLIS; Zimmerman & Martinez-Pons,
1986) was developed to assess 14 classes of self-regulated behavior. Appendix
F shows the adopted version of the SRLIS that I found in a doctoral dissertation.
These categories include self-evaluation, organizing and transforming
instructional materials, goal setting and planning, seeking information from
nonsocial sources, record keeping and monitoring progress and results,
environmental structuring, self-consequating, rehearsing and memorizing,
seeking assistance from social sources, and reviewing records. In addition, a
single category of non-self-regulated behavior (labeled “other”) was included.

The SRLIS requires students to consider six different learning contexts as
they use the strategies. There were six different learning contexts: classroom
situations, home, completing writing assignments outside class, completing
mathematics assignments outside class, preparing for and taking tests, and
poorly motivated.

Measures of reliability and validity of the SRLIS have been stable. Reliability
coefficients for the SRLIS when using inter-rater reliability procedures was .86


