

Examination of the Self-Regulated Learning Processes for Low and High Achievers in Biology

Abstract

This study aimed at comparing high and low achievers with respect to various self-regulated learning processes. For the specified purpose, 252 Turkish high school students were administered the Motivated Strategies for Learning Questionnaire. Results indicated that there were significant mean differences between high and low achievers with respect to various motivational (i.e., intrinsic goal orientation, extrinsic goal orientation, self-efficacy, test anxiety) and cognitive-behavioral (i.e., meta-cognitive self-regulation, effort regulation and help seeking) processes. In addition, regardless of the achievement level of the students, intrinsic goal orientation, task value, and self-efficacy were found to be significantly linked to various cognitive and behavioral processes of self-regulated learning.

Key words: *biology achievement, self-regulatory processes.*

Introduction

Grounded within social-cognitive theory, Zimmerman's (2000) model defined self-regulated learning as the process whereby students personally activate and sustain their behaviors, cognition, and motivation that are systematically oriented toward attainment of academic goals. Accordingly, Zimmerman's model of self-regulated learning stressed the importance of cognitive, behavioral and motivational processes in students' academic performance: *Cognitive processes* involved in self-regulated learning contributing to academic performance include the use of various cognitive strategies, like rehearsal, elaboration, organization,