Metacognition is defined as the knowledge, awareness, and self-regulation of cognitive processes. This study investigated the relationship between metacognitive ability and academic performance in first-semester undergraduate students using a pre-test/post-test intervention design, with particular attention to examining covariates and mediators. The primary objective of the study was to investigate whether metacognitive ability predicts academic performance in first-semester undergraduate students. Covariates included intrinsic motivation, effort regulation, prior knowledge, and history of academic performance. This study also investigated whether students' learning attitudes and strategies mediate the relationship between metacognitive ability and academic performance and whether training in metacognitive strategies improves academic performance when compared to a control group.

It was hypothesized that the metacognitive abilities of first-semester undergraduate students would predict academic performance in an introductory psychology course. Additionally, it was hypothesized that students instructed in metacognitive strategies would perform better on the final exam than students who did not receive this instruction. The study sample consisted of 48 first-semester undergraduate students enrolled in an introductory psychology course at the University of Vermont. All participants completed questionnaires measuring metacognitive ability and covariates. Participants were then randomly assigned to the metacognitive group or to the control group and attended two one-hour sessions of instruction in either metacognitive strategies (metacognitive) or review strategies (control) within a two-week period. Following the intervention, participants completed a second set of questionnaires and took the final exam for the course.

Preliminary analyses suggest that there are no significant group differences regarding final exam scores. Results to be presented will explore correlations between covariates and

measures and whether measures of metacognitive ability predict academic performance. Discussion of the findings will focus on the relationship between metacognitive ability and academic performance, educational implications, and directions for future research.