THE RELATIONSHIP BETWEEN LEARNING/STUDY STRATEGIES
AND GAINS IN ALGEBRA I COMPETENCY AMONG
DEVELOPMENTAL MATHEMATICS STUDENTS

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ABSTRACT

The purpose of this prediction study was to relate the three subscales—skill, will, and self-regulation—associated with the Learning and Study Strategies Inventory (LASSI) to gains in Algebra I competency for developmental mathematics students at Paul D. Camp Community College. The study involved the academic evaluation of MTH 3 students \( n = 142 \). These students were first-time developmental Algebra I students enrolled at the college during the fall 2009 and spring 2010 semesters. Placement into this course was determined by the COMPASS\textsuperscript{®} placement test. A Pearson correlation was conducted to determine whether a relationship existed between LASSI results and Algebra I residual gain scores. A positive correlation was revealed for each of the subscales. The individual LASSI measures, which included anxiety, attitude, concentration, information processing, motivation, selecting main ideas, self-testing, study aids, test strategies, and time management were also tested. Except for anxiety, each of these measures had a significant correlation with residual gain in Algebra I competency. A multiple linear regression was also performed resulting in concentration, information processing, and motivation being useful predictors of academic growth. In an effort to identify specific traits among these students, demographic data were gathered in the areas of gender, ethnicity, age, classification (traditional vs. nontraditional), and financial aid status. An analysis of variance was used to test differences between means of these student characteristics. Results indicated that both classification and gender had significantly different means. This study suggests that elements other than academic skill, which refers to the teaching of content matter, must be present in developmental mathematics courses to ensure that a greater number of students not only successfully complete course
requirements but also do so in a timely manner. Developmental education programs can be greatly improved by incorporating strategic learning activities and material that involve developing the whole student. Such improvements include enhancing students’ abilities and knowledge of the will element to make learning a priority and the self-regulation element to accomplish specific tasks more efficiently.