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# Self-Assessment and Student Improvement in an Introductory Computer Course at the Community College Level

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# Self-Assessment and Student Improvement in an Introductory Computer Course at the Community College Level

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## **Self-Assessment and Student Improvement in an Introductory Computer Course at the Community College Level**

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### **ABSTRACT**

The purpose of this study was to determine a student's computer knowledge upon course entry and if there was a difference in college students' improvement scores as measured by the difference in pretest and post-test scores of new or novice users, moderate users, and expert users at the end of a college level introductory computing class. This study also determined whether there were differences in improvement scores by gender or age group. The results of this study were used to determine whether there was a difference in improvement scores among the three campus locations participating in this study.

Four hundred sixty-nine students participated in this study at a community college located in Northeast Tennessee. A survey, pretest, and post-test were administered to students in a college level introductory computing class. The survey consisted of demographic data that included gender, age category, location, Internet access, educational experience and the self-rated user category, while the pretest and post-test explored the student's knowledge of computer terminology, hardware, the current operating system, Microsoft Word, Microsoft Excel, and Microsoft PowerPoint.

The data analysis revealed significant differences in pretest scores between educational experience categories. In each instance, the pretest mean for first semester freshmen students was lower than second semester freshmen and sophomores. The study also reported significant differences between the self-rated user categories and pretest scores as well as differences in improvement scores (post-test scores minus pretest scores). However, the improvement scores (post-test scores minus pretest scores) were higher than the other self-rated user categories. Of the three participating campus locations, students at Location 1 earned higher improvement scores than did students at Location 2. The results also indicated that there was a significant difference between the types of course delivery and course improvement scores (post-test scores minus pretest scores). The improvement scores for on ground delivery was 5 points higher than the hybrid course delivery. Finally, study revealed no significant differences according to the gender and age categories.