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DISSERTATION ABSTRACT

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Relationships among Field Dependence-Independence, Perceived Computer Competence and Unit Test Score for a Northeastern Ohio College

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The study examines the students' preference, i.e., FDI and the relationship it has to the Computer Competency Survey score and the Unit test score of the computer competencies being taught; with the possibilities of predicting Unit test score by the variables FDI, CCS. The dummy variables Class time and Gender are added to the major study. Also, computer self-efficacy is defined as the difference between student self-evaluation and the Unit test score. The subjects in the major study are 110 community student volunteers enrolled in beginning computer course of study.

The eighty-four daytime students and twenty-six evening students used the same curriculum and machines and were tested by the same researcher. All students responded to the CCS, 45 questions dealing with the students' perceived knowledge and computer expertise and to the Group Embedded Figures Test (GEFT) to classify the participants as FI, FM, or FD group members.

The Unit test score was administered after the students were exposed to the same type of instruction, text, lab, and tests.

Analysis of variance procedures reveal differences (0.05) between two groups: UTS and Class Time at $p=0.039$, and UTS and GIFTTOL at $p=0.02$. The overall F value is 3.14 and $p<0.017$ which is much less than the established alpha level. The Major Study found FDI as the greatest influence on the predictability of the equations at 0.27. Whereas the CCS at 0.04 has very little effect on the UTS, FI students' group means are higher than FM or FD groups. Field Dependent students tend to do well with social and experimental types of instruction. Educational materials should incorporate analytical, for the FI students and global interpretations for the FD students. FD students are more able to match the CCS with the UTS thus recording on the survey more accurate self-interpretations on stored knowledge of computer competency. Or, FI students are less confident but more skilled than the FD students. More study is needed on the use of the CCS, FDI, and test scores using different computer models, curriculum and evaluation tools. Further research is needed on instrument reliability for the CCS. More research is needed on the parts, effects and relationship of self-efficacy and perceived computer competency.