Applied Computer Science: Student Learning Styles and Success, Including Analysis of Preferred Teaching Styles

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In the fall of 03, we requested that all students in ITK160, the first required course in our school, join our study. Approximately 125 students agreed to be in the study and they took Riding's Cognitive Styles Analysis (CSA), a learning styles assessment on the computer. In addition, 130 students in ITK150, a general education course offered by our school, took Riding's CSA as well. There was no statistical difference between the means of the two groups.

Our longitudinal research plan includes having students take the CSA again after completing ITK160, our intro course, and ITK168 and ITK169, a two semester programming sequence. A few students take ITK160 and ITK168 concurrently. In the spring of 04, 12 of theses students finished ITK169 and retook Riding's CSA. At the end of the current semester, students finishing ITK169 will be asked to take Riding's CSA. Currently there are about 70 active students in the course, so we are hoping to get enough data for analysis. Once we have that data, we can do a thorough analysis.

Preliminary data indicates a significant shift in learning style on the analytic-wholist scale towards the analytic end of the scale.

We created a form to use to analyze instructors' teaching styles. Our student researcher attended every instructor's class twice and recorded his observations. In addition, we created a questionnaire for the instructors to fill out regarding their teaching styles. This data will be analyzed in conjunction with the CSA scores.

We have completed the following requirements of the grant.

* We received IRB approval for our study.
* One member of our team attended every meeting of the sotl grant group during the past school year.
* We have submitted a proprosal to present our research at the January 05 ISU Symposium on Teaching and Learning.
* We have presented our preliminary findings at the IS-SOTL conference in October, 2004 at Bloomington, Indiana.