

Autism/Excel Study

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Computing Workshop: CS Education for Students with Special Needs

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Abstract: Five high school students with ASD participating in the Excel/Autism study at CMU were able to demonstrate mastery of a set of Excel topics. The Excel curriculum covered approximately the same topics as are covered in the Excel portion of Computer Business Applications, a class for regular education students at Fox Chapel Area High School, a high school in suburban Pittsburgh. The students with ASD were provided with one-on-one tutoring support. Two of the five ASD participants self-initiated activities and engaged in generative thinking to a substantial degree over the course of the eight instructional sessions for which data was recorded. Two others demonstrated lesser amounts of this behavior, and one participant did not demonstrate any. The ASD experimental participants, as compared to a treatment group of three students with ASD who did not receive instruction in Excel, demonstrated improvement in a multi-step planning task which was significant.