



INFORMATION SHEET

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Computer Aided Instruction

Computer Aided Instruction (CAI) is an evidence based practice used widely in schools and homes today. Computer programming has been studied to include the teaching of both academic and communication skills. While computer usage is highly motivating to learners, including those with autism spectrum disorders (ASDs), usage is only one component within an individualized program.

Studies specific to academics have focused on developing vocabulary and grammar usage. Communication studies have focused primarily on communicative functions and initiations. Evidence is available for learners from 3 to 18 years.

Why is CAI appropriate for many students with ASD?

- Results are predictable and feedback is immediate.
- There is lack of social and verbal ambiguity often associated with face-to-face instruction
- Avoids sensory overload
- Learners may work at their own pace
- Programming may be individualized and customized
- Learner attention may be increased

What are the education benefits of CAI?

- Learners may display increased motivation and attention
- There may be a decrease in challenging behaviors
- Time on task may increase
- Increased learning may incur

Adapted from: http://etec.ctlt.ubc.ca/510wiki/Using_Computer-Aided_Instruction_in_Teaching_Students_with_Autism_Spectrum_Disorder

Project ACCESS staff offers the following suggestions when providing CAI: Be sure there is a well-thought-out plan in place. Left to chance, technology in classrooms, or at home, can interfere with the social opportunities crucial to learners with ASDs. Use the technology, but be careful that it is scheduled and purposeful—not something to just play with or fill time. Students should know the plan.

Technology, and specifically CAI, is an important component in programming for students with ASD, but it is most useful when planned and used accordingly.

Software choices for computer usage changes rapidly, so it is difficult to recommend something specifically. Make sure the software chosen matches the individual student's goals. Additionally, staff members need to familiarize themselves with the software, so they can trouble shoot and be available to assist. Some software allows for data management, while teachers will have to collect and monitor data for others.

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