

Preparing preservice and in-service teachers to consider and use assistive technology to differentiate instruction for culturally/linguistically diverse special education students in inclusive settings

Effective teachers in inclusive settings use assistive technology (AT) and instructional technology to create differentiated, interactive and motivating teaching/learning environments for students with special needs and for students who are culturally/linguistically diverse. This paper addresses what teacher educators can do to familiarize their preservice and in-service teachers with current options in assistive technology and prepare them to work with assistive technology. Software technology and instructional strategies to be used with students in a preservice teacher preparation program will be explored. Presenters will share a variety of assistive devices that help students learn, communicate with others, use technology, be organized, take notes, read text, and learn a second language

With the passage of IDEA Amendments of 1997, the reauthorization of IDEA in 2004, the Technology-Related Assistance for Individuals with Disabilities Act of 1988, and the Americans with Disabilities Act (ADA) of 1990, educators are required to consider the appropriateness of new technologies as a tool or intervention for every classified child with an Individualized Educational Programs (IEP). Assistive technology and instructional technology can help children compensate for their disabilities, focus on their abilities, and reach their full potential by allowing them to gain more control over their environment. Preservice general education teachers and special education teachers need to have knowledge of and experience with assistive and instructional technology that allows students greater access to inclusive education settings and to society in general.

This paper addresses what teacher educators can do to familiarize their preservice teachers with current options in assistive technology and prepare them to work with assistive technology. Preservice teachers need minimum competencies in technology and assistive technology. This paper describes three-prong instruction teacher educators can provide preservice teachers.

First, education programs should include an exploration of the variety of challenges students may have. Second, instruction should also provide familiarity with the laws and terms associate with assistive technology. Third, preservice teachers should have hands-on experience with assistive technology hardware and software and understand when and how to use them. Educators need to be familiar with a variety of alternate devices and software. They should have hands on experiences with hardware and software such as adapted keyboards, electronic communication, speech recognition, hand-held talking translators, reading systems and touch screens. All teachers need these three kinds of information in order to assess the educational challenges and learning differences of each student and to provide assistive technology devices and services.

IDEA defines the terms “assistive technology device” and “assistive technology service”. The term “assistive technology device” means any item, piece of equipment, or product

system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disability. Assistive devices allow children with special needs to access technology in the most efficient way. Assistive technology requires clear planning to benefit the students involved. Preservice teachers need to have a clear understanding of the reason why it is being incorporated into the education of children with disabilities or the technology becomes just another add-on. Preservice teachers need to develop an awareness that many possibilities for assistive technology exist within an inclusion class environment.