The concept of assistive technology to help special education students achieve more in K-12 classrooms is nothing new, but the portability of many of the devices is a relatively new trend that is making a big impact on the ways students with special needs learn. Assistive technology devices used to be big, clunky pieces of equipment that drew attention to learning and physical disabilities. Today, assistive devices are often the same types of technology K-12 students are using in traditional classrooms and there is a "coolness" factor in both instances.

The way that assistive technology looks is just one aspect of the effectiveness of the educational equipment, though. The use of assistive technology is also changing to provide students with more customized learning experiences. Studies show that dropout rates for special education students are on the decline - at least partially because the technology exists to keep these kids comfortable and in class longer than in the past.

Strides in Arizona

In December, the Arizona Department of Education announced a $260,000 federal grant among traditional public and charter schools in 12 districts to aid specifically with assistive education efforts. Through the grant, students with special needs can get personalized technology for iPads, notebook-size word processors and electronic pens that can scan words and display definitions. All of these efforts are intended to keep special education students in the K-12 system through graduation by having the technology to keep up in class.

This is not the first effort by the state to give an advantage to students with special learning needs. To help with the small technology budgets, the Education Department has an assistive-technology loan library on the Northern Arizona University campus. Last year, schools checked out over 2,000 items - ranging from pencil grips to iPads - to allow teachers and students to give the devices a trial run before the district made the purchase.

The assistive technology initiatives in Arizona district place traditional classroom inclusion on a pedestal with a heavy emphasis on technology. What administrators are finding is that non-verbal kids with devices prove they know a lot more than even they themselves realize. Students with autism, cerebral palsy and other disorders that impair speech are reaping the benefits of these devices and feeling successful. Best of all: the students are developing better relationships with one another.

Autism and iPads

Depending who you ask, the iPad has varying effects on children with autism - but most parents and teachers would say that the device has made in-roads in their students' attitude about learning. Experts at Apple say that iPads "cure" sensory overload and give autistic children control, along with a way they can communicate effectively. Using less extreme language, researchers at Vanderbilt University say that speech-generating devices, like iPads, can encourage late-speaking children with autism spectrum disorders to speak, even from the ages of 5 to 8. In other words, the basic technology that is readily available in classrooms and many households is also effective in learning initiatives for children with a specific disorder that impacts traditional learning.

The iPad is just one example. E-readers with screen variance in size of font, brightness and even speaking command options make in-classroom learning possible for children with sight obstacles. Students who need extra help learning to read can spend that extra time with e-readers or computer programs that customize the experience. Students with physical disabilities can sit at a regular computer in a traditional classroom and use specific equipment or simply their voices to achieve the same academic results as their peers.

As assistive technology continues to integrate with typical technology, the students are the beneficiaries. The technology is not enough to keep them in their seats if they are not comfortable using it.

How has the assistive technology of the past few years had a positive impact in your classrooms?

Dr. Matthew Lynch is the author of the recently released book, The Call to Teach: An Introduction to Teaching. To order it via Pearson, please click on the following link.