ESL Students with Assistive Technology

Introduction

Across the United State, one of the most challenging groups of individuals to diagnose with learning disabilities is English as a Second Language(ESL). Currently forty-two percent of all public school teachers have at least one ESL student in their classes (NCES 2002). Nationally, the number of students enrolling in school programs has increased steadily in recent years increasing 109% from 1985 to 1995 (TESOL Pressroom 1997), as an example, in Florida along between the 98 and 99 school year the ESL population served by the school system increased from 143,000 to 168,000 (Hoffman 2002; 2000). Compounding the educational effect on this growing population is that only thirty percent of public school teachers instructing ESL students have received training for teaching ESL students, and fewer than 3 percent of teachers with ESL students have earned a degree in ESL or bilingual education (NCES 2002). Most teachers realize a need for education that recognizes ESL students' learning differences and allows ESL students to have access to the same information and experiences as their native speaking peers. However, according to a report by the U.S. Department of Education (1999), only 20% of teachers who taught ESL felt well prepared to meet the needs of their students.

For these reasons, it is becoming ever more incumbent upon mainstream teachers to develop awareness about the learning differences and accommodate ESL students in the mainstream classrooms. It is very important to train mainstream teachers in the

principles and procedures of assistive technology. This paper intends to help mainstream teachers turn the challenges posed by high standards and increasing learner diversity into opportunities to maximize learning for every student.

What is Assistive Technology in Learning for ESL students?

Assistive technology in Learning can be defined as any technology that improve instruction and promote student learning, such as Reading pens, talking caloulators and dictionaries, hand held translators, and closed captioning on televisions. This enhanced instruction is not only for students with disabilities, but for "all" students including ESL students, and other diverse populations of students. In this paper, I will try to provide some guidelines that mainstream teachers can use to assist ESL students have access to the same information and experiences as their native speaking peers and help students function with greater independence. Assistive technology can empower ESL students in the following areas.

(a) AT assist ESL learners acquire foreign language

The use of computers has proven to be beneficial in assisting ESL learners acquire a second language. Using and mastering assistive technology can build self-esteem in the student who is able to work more independently and receive immediate feedback. The use of screen reading software can be particularly effective as they provide access to almost all written materials. Students can scan in materials or open up electronic documents or even browse the net and have the text read out loud to them. The student benefits from having access to materials he/she may

not have the ability to read yet as well as the additional educational benefit of seeing the words highlighted on the screen while hearing them said out loud. More sophisticated models such as WYNN 3.0 and Kurzweil 3000 offer additional study tools that would be helpful to the ESL learner. ReadPlease 2002 offers a simplified screen reading program that is currently free for download.

(b) AT used in Classroom Applications

It is important for classroom teachers to have at least a base knowledge of options for assistive technology devices and educational strategies to ensure that all students, including those with disabilities and second language issue, have full access to learning. Assistive technology (AT) devices can decrease students' isolation and allow them to become part of regular subject area classrooms. Assistive technology then becomes a tool that provides a method for an individual who is experiencing language difficult to still participate in a classroom. As the inclusive education of all students occurs more frequently within the standard classroom, then it becomes important that the knowledge/experience base for all teachers needs to be expanded to incorporate assistive technology approaches and accommodations.

Assistive technology has the capacity for increasing student independence, increasing participation in classroom activities and simultaneously advancing academic standing for students with special needs, providing them the ability to have equal access to their school environment. Developmentally necessary assistive devices can be shared among individuals. These devices help meet an educational need based on a

developmental delay, which ideally would be improved, thereby eliminating the need for the item in an individual's future. The instructionally necessary devices are the devices that assist in the instructional process at a course or grade level, and this level has important implications for the standard classroom teacher. The modification or technology applications would not need to accompany the student as he or she progresses to the next course or academic level, and instead the assistive technology device could remain at the course or grade level's teacher.

(c)AT Inclusion in the Teacher Preparation Program

Teacher education programs are encouraged to change to include the concepts of inclusion through their accreditation agencies, such as Interstate New Teacher Assessment and Support Consortium (INTASC) and National Council for Accreditation of Teacher Education (NCATE). In NCATE's (2002) latest set of unit (college) standards, as part of the vision for professional teachers for the 21st Century qualified teachers should teach every child. The standards also state that new teacher graduates should be able to "apply effective methods of teaching students who are at different developmental stages, have different learning styles, and come from diverse backgrounds." INTASC states, in its Model Standards for Beginning Teacher Licensing, that teachers should "know about areas of exceptionality in learning--including learning disabilities, visual and perceptual difficulties, and special physical or mental challenges" (1992). A commitment to technology is also needed to ensure that all teacher candidates are able to use educational technologies to help all

students learn. NCATE and INTASC both expect teacher candidates to "understand language acquisition; cultural influences on learning; exceptionalities; diversity of student populations, families, and communities; and inclusion and equity in classrooms and schools" (NCATE 2002). Based upon this knowledge general teacher education programs should be designed to include content related to inclusion concepts, including assistive technology.

(d)Proposed AT Integration Model

To better prepare qualified teachers who can work with diverse populations, preservice education programs need to include assistive technology instruction. Assistive technology strategies can provide access to curriculum and information in a variety of formats to meet the learning needs of students with a broad range of abilities. These assistive technology devices can be used to increase, maintain, or improve ESL students.

To fill this knowledge gap there is a need to expand the number of courses that students are exposed to assistive technology as it applies to curriculum. General inclusion concepts and strategies could be taught throughout the core required and content method classes. These courses should include educational methods, teacher planning, reading and literacy, and instructional technology. Many colleges of education now require or encourage their students to take an introductory or survey course in educational technology or computer applications, this course would be ideal to add the general concepts of assistive technology and the educational assistive

technology area of computer access. The other teaching methods courses could then include instruction and activities focusing on the assistive technology educational areas which assist with particular subject area aspects or ways that assistive technology tools that can assist students in becoming successful with the given curriculum.

Conclusion

Many of the suggestions listed in this paper are widely used by some teachers without knowing that they are implementing assistive technology. These teachers are aware of the importance of implementing teaching techniques that allow more access to the information being taught. However, more teachers need to become familiar with assistive technology in order to embrace and use it so that they can instruct and support ESL students in an inclusionary setting.

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