Chapter 5
Assistive Technology for the General Education Classroom

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ABSTRACT

It is the responsibility of schools and educators to utilize appropriate assistive technology to meet the educational needs of students with disabilities within the least restrictive environment. The use of assistive technology enables educators to adapt content and activities within the curriculum to meet the specific needs of students, and it promotes learning, self-confidence, independence, and a higher quality of life for students with special needs. This chapter explores how educators can utilize assistive technology in the general education classroom setting to support students with disabilities, specifically those with sensory, motor, and cognitive limitations. Diverse types of assistive technology devices that students with disabilities can use to overcome barriers to written language, reading, listening, memory, and mathematics are discussed.

INTRODUCTION

The goal of this chapter is to assist the general education classroom teacher in exploring various methods of differentiating his or her instruction and creating an inclusive learning experience capable of bridging the education gap caused by a disability. The Individuals with Disabilities Education Act (IDEA, 2004) defines assistive technology as, "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 a child with a disability" (§602). Furthermore, the definition for assistive technology "does not include a medical device that is surgically implanted, or the replacement of such device" (IDEA, 2004, §602).

To further this definition, Erdem (2017) defined assistive technologies as the equipment, apparatus, devices, systems, services, processes, and modifications made to the environment for use by disabled people in order to safeguard their active and full participation in society. Furthermore, assistive technologies consist of different devices intended to help disabled students with special educational and/or rehabilitation needs (Fulcher, 2015). Similarly, Winter and O'Raw (2010) defined such technologies as the equipment, tools, and product systems used to facilitate improvements in a disabled person's functions. In summation, assistive technology is any piece of equipment provided to a classroom student that assists him or her in overcoming an individual disability and establishes educational equivalence for learners with special needs.

Students using assistive technology are able to gain more control over their individual learning experiences. According to Erdem (2017), assistive technology offers numerous resolutions in providing support to students with limitations to meet their needs in order to actively participate in the general education classroom experience. Using assistive technology enables students to improve their performance by providing support, such as specifically adapting content and activities of the curriculum to their needs, within a least restrictive environment. Additionally, assistive technology aids students having special educational needs in learning, building self-confidence, gaining independence, and achieving a higher quality of life. In summation, assistive technologies serve to increase both the functional performance and academic success of students.

This chapter focuses on three main categories of disabilities: (a) sensory; (b) motor; and (c) cognitive. The Montana Office of Public Instruction (2004) stated, "For all students, technology makes things easier. For students with disabilities, technology makes things possible" (p. 7). As a result, it is the responsibility of schools and educators to utilize appropriate assistive technology to meet the educational needs of students with disabilities.

BACKGROUND

There are many forms of assistive technology used to improve or support the quality of education for those with special needs within a mainstream general education classroom setting. Support for students receiving special education varies based on

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