

Assistive Technology Report

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Abstract

Assistive technology integration in education is a topic widely discussed throughout the educational field. This paper reviews the benefits of utilizing audiobooks as an assistive technology in regards to education. The paper then goes on to describe the history of audiobooks. Although assistive technology integration has proven to improve student learning, audiobooks are not fully integrated by educational professionals. However, through personal experiences and intensive study in regards to audiobooks, I have determined that assistive technology integration is essential to provide a meaningful education differentiated to meet all student's needs. This paper seeks to answer the question: Why should educators integrate assistive technology, specifically audiobooks, into their classroom instruction? It is hoped that this paper will inform and persuade practitioners as to why it is essential that audiobooks be utilized in every classroom.

Keywords: Assistive, Technology, Audiobooks, Education

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As stated by Terence Cavanaugh in 2002, the Technology-Related Assistance for Individual with Disabilities Act of 1998 states that an assistive technology device was defined 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 individuals with disabilities.” Assistive technologies include, but are not limited to, text-to-speech assistive tools, math tools (manipulatives), alternative keyboards, freeform database software, graphic organizers and outlining, optical character recognition, phonetic spelling software, word processors, text magnifiers, organizational planners, and audiobooks. One assistive technology I perceive as being extremely beneficial to student learning is audiobooks.

Although most audiobooks were introduced as accessibility tools, and later on as assistive technologies, their history dates back to 1878. In Thomas Edison’s *The Phonograph and its Future*, Edison states that “The advantages of talking books over those printed are too readily seen to need mention. Such books would be listened to where now none are read” (Edison, 1878).

The United States and United Kingdom began using audiobooks as an assistive technology for the blind/visually impaired. In 1935, works by Agatha Christie, Joseph Conrad, and St. John were recorded and distributed. For nearly twenty years the focus on spoken-word recordings remained on serving those with visual impairments (Brock, 2017).

In addition to the works of Edison, Christie, Conrad, and St. John, the United States National Recording Registry recognizes a phonograph recording of the poet Dylan Thomas.

Thomas read his work in a 1952 session with Caedmon Records as the project that kick-started the audiobook business (Rubery, 2008). Eight years after the “kick-start” of the audiobook business, in 1960, a “talking book player” was introduced in the United Kingdom. This audio book player brought audiobooks to audiences all over the world.

Since 1960, the audiobook industry has grown drastically. Audiobooks have been recorded on LPs, cassettes, CDs, and now downloadable files. Audiobooks are easily accessible and there are affordable options. This has allowed for the use of audiobooks to be integrated into classrooms on a regular basis.

Audiobooks are useful educational technology resources. Audiobooks help students with disabilities such as dyslexia or the visually impaired, students who are English Language Learners (ELLs), students who have a learning disability that causes them to struggle with reading, and students who are under time constraints. In addition struggling readers, audiobooks can encourage competent grade level readers to challenge and expand their comprehension and enjoyment of text. Audiobooks are beneficial to teachers as well. Teachers can utilize audio books as a constructive differentiation and time saver in the classroom. In addition to classroom use, teachers can listen to audiobooks to gain professional development.

Audiobooks can be used through the use of multiple devices. When selecting audiobooks for classroom use it is essential to identify an easy to use format. Consider what format will work best for your students. They are available as CDs, digital files that can be downloaded to classroom devices such as phones, tablets, laptops, and more. Android, iOS, Windows, Kindle, and Mac are common device brands and software systems utilized to listen to audio books. There are also many websites and applications that offer membership programs that allow users to

access audiobooks. A few examples of these are Audible, Audiobooks.com, Playster, and Applebooks.

As stated by Kimberly Moran in, *7 Ways Audiobooks Benefit Students Who Struggle with Reading*, the benefits of utilizing audiobooks in education include increased fluency, word exposure, comprehension, background knowledge. Audiobooks strengthens the working memory and improves vocabulary.

Students benefit when they are able to access audiobooks in the classroom. Having literature read aloud helps students with disabilities and struggling readers not focus solely on decoding, but information retention. Students who struggle with decoding and the mechanics of reading spend valuable time focusing on sounding out words. This makes it difficult for them to retain the information they are reading. By eliminating the focus on decoding, it is easier for them to retain, remember, and understand the content. This allows them to build their working memory. In addition, this allows for quicker response to questions.

Providing students with access to grade-level materials through the incorporation of audiobooks as an accommodation improves their self-esteem. With greater self-esteem, their participation in class and peer discussions increases. Simply because a student cannot read as well as their peers does not mean they are less developmentally ready to learn the same information. Listening to audiobooks provides students information when they need, not just when they can read it.

Audio books can be used during the study of English Language Arts (ELA), Science, and Social Studies. Audiobooks allow students to hear literature they would not be able to read based on their own reading proficiency.

In regards to ELA, (Reading, Grammar, and Writing) audiobooks are an essential assistive technology. Students who are visually impaired would not be able to read a traditional printed text. However, with audio books they can listen to them. Students who have a disability in reading, English Language Learners, and who struggle reading grade level appropriate texts can listen to the texts. This allows for the student to read grade level texts while continuing to build vocabulary, fluency, and comprehension skills.

In many cases students who struggle with ELA also struggle in Science and Social Studies. This is due to the heavy amounts of reading required for these subjects. If a student struggles, and needs assistive technologies in ELA, why would they not need them in other content areas? Audio book adaptations of textbooks, articles, and other needed literature can be utilized to effectively teach Science and Social Studies.

Teachers use assistive technology tools not only to make their professional work easier, but more importantly, to make learning more effective (Lever-Duffy and McDonald, 2015). Assistive technology reinforces learning, provides differentiation, fosters critical thinking, and promotes communication. Audiobook utilization is an essential component to provide differentiation in a digital age learning environment.

References

- Brock, R. (2017). Listen up! How audiobooks support literacy. *Reading by Right: Successful strategies to ensure every child can read to succeed*, 169.
- Cavanaugh, T. (2002). The need for assistive technology in educational technology. *AAACE Journal*, 10(1), 27-31.
- Edison, T. A. (1878). The phonograph and its future. *The North American Review*, 126(262), 527-536.
- Lever-Duffy, J., & McDonald, J. B. (2015). *Teaching and Learning with Technology*, 5E. London, England: Pearson plc.
- Moran, K. (2017). 7 Ways Audiobooks Benefit Students Who Struggle with Reading. Retrieved from <https://www.weareteachers.com/audiobooks-benefit-students/>
- Rubery, M. (2008). Play It Again, Sam Weller: New Digital Audiobooks and Old Ways of Reading. *Journal of Victorian Culture*, 13(1), 58-79.