THE ROLE OF ELECTRONIC TEACHING IN SUPPORTING ENGLISH LANGUAGE LEARNERS WITH SPECIFIC LEARNING DISABILITIES

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ABSTRACT

This article reviews the critical role of e-teaching in supporting English language learners with Specific Learning Disabilities (SLDs) through the lens of inclusive teaching strategies and assistive tools. It focuses on how virtual platforms can assist students with SLDs in learning and developing specific skills by addressing their unique challenges in studying. A review of existing studies emphasizes the importance of assistive technology such as speech-generating and text-based devices, screen-reader software, and digital graphic organizers. Studies have found that assistive technologies significantly improve literacy skills in students with learning disabilities. Consequently, this article explores the integration of e-teaching into education, opening new pathways for supporting English language learners with specific learning disabilities.

Keywords: Learning Disabilities, Assistive Tools, e-Teaching, Teaching Strategies, Inclusive Education.

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INTRODUCTION

Learning disabilities are a part of Special Needs Education (SNED) which consist of 1) Dyslexia; 2) Dysgraphia; 3) Dyscalculia; 4) Auditory processing disorder; 5) Language processing disorder; 6) Nonverbal learning disabilities; 7) Visual perceptual/visual motor deficit ("7 Learning Disabilities Every Psychology Professional Should Study," n.d.). Accordingly, the English language, particularly the four (4) English macro skills: 1) reading; 2) writing, 3) listening, and 4) speaking, are some of the innate challenging skills that are difficult for pupils with specific learning disabilities to learn or acquire. Today, virtual and online platforms are the new teaching mediators of learning. According to Zhou, Wu, Zhou & Li (2020, pp. 501-519), using different "technological tools and internet-based education systems" as learning and supporting platforms guarantees that education is continuous and accessible. However, online education for learners with learning disabilities remains obscure and unresponded, and only a few studies have been conducted and published relative to this matter. The article finishes with a brief analysis of the key aspects of the current electronic education (e-education) system, that seeks to bridge the gap between education theory and practical implementation. By gaining deeper insight into these experiences, the journal seeks to uncover and assess various e-teaching strategies, tools, and approaches used to effectively teach learners with specific needs. This understanding will help identify best practices and innovative approaches in an online platform.

RESEARCH OBJECTIVES

This literature review aims to examine existing studies on electronic teaching and its impact on English language learners with SLDs through the following objectives:

1. Identify commonly used electronic teaching technologies that support English language learners with SLDs.

2. Explore instructional strategies and teaching methods that incorporate electronic tools for students with SLDs.

LITERATURE REVIEW

The integration of online learning has significantly transformed a diverse student population. It comes with both opportunities and challenges as this article will discuss through the review of related works of literature.

Distance Education for Special Needs Learners

Various computer-based interventions have been demonstrated to aid phonological development, awareness, identifying quickly, phonemic decoding, word reading accuracy/fluency, spelling, and reading comprehension for individuals with dyslexia—a specific learning disability that affects the ability to read, spell, and process language— in addition to computer-assisted intervention. Studies access to online learning platforms, in particular, is considerably more limited, resulting in an increased anxiety about whether learners with dyslexia might meet such expectations mode of learning.

Assistive Tools

Assistive Technology (AT) is any gadget that assists a student with a handicap in performing a daily task. An assistive technology (AT) tool is any item used to maintain or improve the functioning of a disabled kid, and the tool might be difficult to use (such as a complimentary communication device). To accomplish this remarkable achievement of enhancing the learning of children with learning disabilities, Allan (Online, 2012) established the guiding principles for using this technology in the teaching-learning process. He identified that "1) Assistive technology could only enhance basic skills and not replacing them, and it should be used as part of the educational process, and can be used to teach basic skills; 2) Assistive technology for children with disabilities is more than an educational tool; it is a fundamental work tool that is comparable to pencil and paper for non-disabled children; 3) Children with disabilities use assistive technology to access and use standard tools, complete educational tasks, and participate on an equal basis with their developing peers in the regular educational environment; 4) The use of assistive technology does not automatically make educational and commercial software/tools accessible or usable; 5) An assistive technology evaluation conducted by a professional, knowledgeable in regular and assistive technology, is needed to determine whether a child requires assistive technology devices and services and should be specified in the children's instructional plans; 6) Assistive technology evaluation must address the alternative and augmentative communication needs, that is ability to communicate needs and change the environment for children with disabilities; 7) To be effective, an assistive technology evaluation should be ongoing process."

Teaching Practices and Strategies in An Inclusive Classroom

A crucial aspect of effective inclusive education is the preparedness and competence of teachers. Inclusive education courses have been found to positively influence regular teachers' perceptions and provide a strong foundation of knowledge to be applied in practice (Rabi &

Zulkefli, 2018, pp. 1779-1791). In the context of inclusive education, teachers must adopt new perspectives on teaching and developing the skills necessary to recognize the personal and social needs of students with disabilities. Teachers can better help students' learning process by altering their teaching styles.

Accommodations, such as differentiated assessments and project-based learning have been suggested by Scanlon & Baker (2012, pp. 212-224) to support students with Learning Disabilities (LD). Ford (2013, pp. 1-20) offered co-teaching, peer-mediated instruction, and social justice principles as ways in which to link and support the social-emotional growth of students with LD. Moreover, Ford (2013, pp. 1-20) further discussed the strategies specifically the inclusive education teaching approaches such as 1) One teach, one assist, 2) Team teaching, 3) Alternative teaching, and 4) Parallel teaching. These proposed strategies are designed to support diverse learners, including students with learning disabilities, in an inclusive classroom setting. The study explained the importance of an authentic learning approach in an inquiry-based classroom based on the book 'Fulfilling the Promise of the Differentiated Classroom (Tomlinson, 2003). This online resource provided different strategies for a special needs teacher to organize a classroom to meet diverse learning needs. Means of identifying student learning needs are presented. Tomlinson & McTighe (2006) indicated that teacher competence and positive attitude are generally considered a requisite for successfully implementing inclusive practice. Teacher training programs could play an important role here. Evaluative studies are starting to appear and generally report that teacher training is effective when fieldwork is incorporated, which allows for interaction with students with special needs (Campbell, Gilmore & Cuskelly, 2003, pp. 369-379).

Tomlinson & McTighe (2006) highlighted some of the most important building blocks of designing for strong students and inclusive classrooms, corrective to multiple intelligences, needs, and language skills. They suggested the use of Universal Design for Learning (UDL), differentiated instruction, hands-on activities, and flexible strategies for representation, expression, and engagement. These measures would support both disabled and non-disabled students.

ANALYSIS AND DISCUSSION

This section summarizes the findings from multiple studies about the significance that e-teaching provides to English language students with SLD. The review is structured along the lines of the two specific aims of this article: 1) how are e-teaching assistive tools instrumental to the students with SLDs learning process., and 2) e-teaching strategies that are utilized by

the teachers to meet the needs of learners with associated learning disabilities. This analysis seeks to illuminate the state of e-teaching for English language learners with SLDs through a systematic review of the literature.

1. Importance of E-Teaching Assistive Tools

Based on the reviewed literature, the discussion covers general guidelines for assistive tools use, the types of tools available, and the types of difficulties they address- including specific learning difficulties.

Allan (Online, 2012) emphasized several important principles for integrating assistive tools (AT) into the teaching and learning process. He further discussed that assistive tools should not function as complementary tools, but rather, as enhancement tools to develop the skills of SLDs.

As Higgins & Raskind (1999, pp. 19-30) noted, assistive tools can address difficulties in areas such as reading, writing, communication, and organization.

- Reading and Writing

According to Fasting & Halaas Lyster (2005, pp. 21-40), using assistive technology with a supportive teacher can improve students' reading and writing skills. MacArthur (2009, pp. 93-103) supported this study and emphasized that assistive technology when integrated with effective method education, can help students finish well-written assignments that demonstrate their knowledge and skills. Moreover, Tolic (Online, 2022) highlighted in his study that text readers, audiobooks, and talking books can be utilized as aids and provide new, life-changing opportunities to individuals with difficulty reading printed texts. Moreover, according to Jansson (2010, pp. 135-166), assistive technology like audio texts and Braille can help students with visual incompetence improve their reading skills. Assistive technologies, such as Braille course materials, magnifiers, and screen reader software, can help students improve their reading skills.

- Communication

Studies have shown that assistive technologies help facilitate communication for students with special educational needs in different situations and environments (Cumley, Maro & Stenek, 2009, pp. 1-62). The study highlighted the ugmentative/Alternative Communication method, which is used to help students who have difficulty communicating. This method uses aided and/ or unaided symbols. Moreover, Rodríguez, Saz, Lleida, Vaquero & Escartín (Online, 2008) reported that communication technologies allowed students with speech disorders to communicate with others. Coleman, MacLauchlan, Cihak, Martin & Wolbers (2015, pp. 145-156)

found that using PowerPoint presentations to teach vocabulary positively improved the vocabulary of third-grade hearing-impaired students in secondary school. Coleman (2011, pp. 2-22), further studied that in general, several technologies, including communication boards/books with pictures, eye gaze boards/frames, speech-generating devices, text-based devices with speech synthesis, and picture exchange communication systems, can be used to help people with communication problems and speech disorders.

- Organization

The educational system requires basic competencies including organizing and remembering information, managing time efficiently, and having work skills. Adebisi, Liman and Longpoe (2015, pp. 14-20) found that various assistive technologies, such as control charts or electronic schedules, can be utilized for those students who lack proper organization and working skills. Furthermore, Obukowicz, Stindt, Rozanski & Gierach (Online, 2009) propose various assistive technologies to support organization and information management such as study guides, task analysis, digital highlighters and sticky notes, online sorting file tools, digital graphic organizers, and electronic web trackers. Mechling (2007, pp. 252-269) stated in his literature review on the use of assistive technologies, that studies on the subject found that the use of assistive technologies (pictorial, tactile, or audio stimulation, as well as computer-aided systems) improved the abilities of mentally impaired people to initiate and complete their daily activities.

2. E-Teaching Strategies

The following section presents a comprehensive discussion and analysis of four essential teaching methods. This shows the significance of inclusive education in supporting learners with specific disabilities. Ford (2013, pp. 1-20) outlines the evidence-based models designed to promote inclusive education in mainstream settings. The article highlights strategies that encourage teachers to develop a cooperative learning environment to support students through online systems utilizing a flexible and individualized approach.

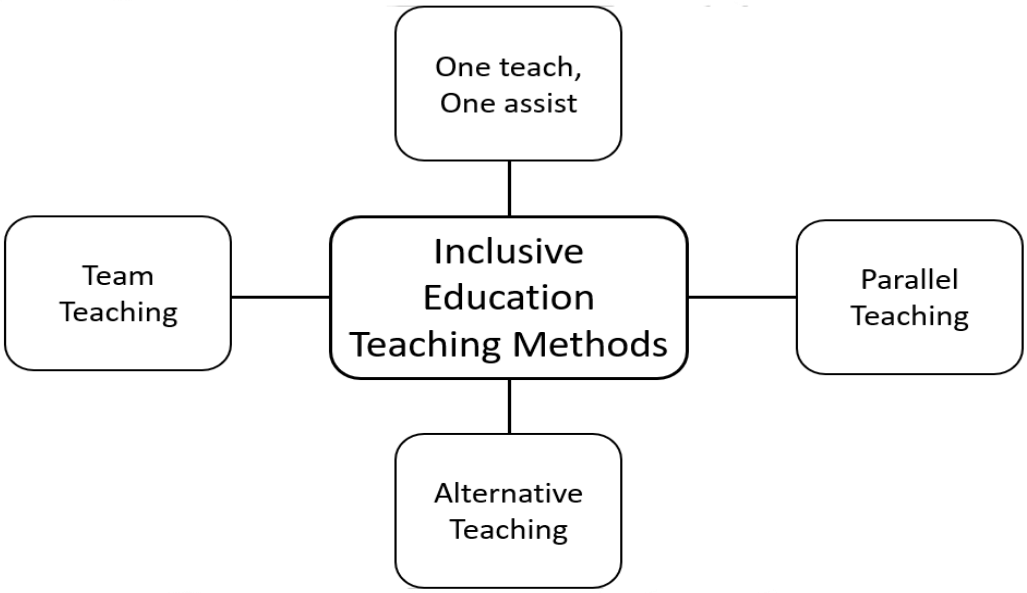

Figure 1: Inclusive Education Teaching Methods. (Ford, 2013, pp. 1-20)

This strategy involves one teacher providing whole-group instruction while another teacher or assistant provides individual support to students who need additional help (Mehrpouyan, 2023, pp. 4127-4141). Ford (2013, pp. 1-20) also emphasized how this can be particularly beneficial for English language learners with SLDs, as the assistant can provide personalized attention and address specific learning needs. As Drelick, Damiani & Elder (2024, pp. 298-305) suggest, while one teacher conducts the main lecture via video or shared screen, the supporting teacher can answer individual questions using the chat function or private messages. Moreover, for deeper support, the support teacher can work with smaller groups or individuals in breakout rooms to help students with SLDs process or apply the taught content.

Parallel Teaching

Ford (2013, pp. 1-20) emphasizes the effectiveness of parallel teaching to students who have SLDs as this method has diverse lesson plans, and teachers are required to plan lessons together before regrouping students into flexible groups. Respective teachers teach the same material to both small groups. This strategy not only provides students with the benefits of working in small groups, but it also allows teachers to learn cooperatively from each other's expertise.

Alternative Teaching

According to Catholic University of Korea College of Medicine (CUCM) and Konyang University College of Medicine (KUCM), Hur, Cho & Kim (2018, pp. 119-130), an alternative teaching approach involved conducting individualized mentoring sessions approximately five times throughout the semester. These sessions addressed a wide range of topics, such as career guidance, personal development, academic discussions, educational outings, recreational activities, and community service. This method demonstrated the feasibility of offering customized support tailored to students' diverse needs. The variety of activities suggests that individualized mentoring can be an effective strategy for addressing the unique challenges faced by medical students, enhancing both academic and personal development. Ford (2013, pp. 1-20) also highlighted in his study, Electronic Journal for Inclusive Education, how alternative teaching method benefits students with disabilities by focusing on their specific skills or concepts that align with their learning goals.

Team Teaching

Vaughn, Schumm & Arguelles (1997, pp. 4-10) described the team teaching method as a collaborative instructional approach. Educators collaborate to deliver instruction within the same classroom. They may alternate leading the lesson or demonstrate desired student behaviors, such as effective note-taking or asking questions appropriately, while the other teacher facilitates the instruction. Ford (2013, pp. 1-20) also highlighted that students with disabilities learn most effectively when teachers collaborate and take turns leading instruction.

CONCLUSION

In conclusion, this article highlights the integration of e-teaching into education which has opened up new pathways for supporting English language learners with specific learning disabilities. Technology was introduced to the education sector to provide unique solutions for students with learning disabilities. While e-teaching methods like cooperative teaching practices, inclusive practices, and differentiated instruction no longer take place in a physical classroom, they are still in place to ensure learners of any publication will receive the same level of tailored support they might receive in a brick-and-mortar building.

Moreover, innumerable studies have demonstrated assistive technologies in those areas to help students develop their reading, writing, communication, and organizational skills to achieve academic and personal growth. The results highlight the need for appropriate teacher

training, as well as the care with which assistive resources and modes of presentation are integrated, and evidence-based teaching practices, in providing equitable access in the e-Learning landscape.

RECOMMENDATION

Based on the findings of this article, it is recommended that educators and educational institutions prioritize a well-planned integration of assistive technologies in e-teaching environments to support English language learners with specific learning disabilities. With the effective implementation of teaching strategies using assistive technologies, the electronic education system can be enhanced to become more inclusive and accessible.

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