Training Special Education Teachers to use Reading Interventions with Students with Intellectual Disabilities

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Abstract

Modern inclusive education systems place a top priority on providing students with a high-quality education, especially those who require special schooling. One of the most important abilities for these to have the ability to read proficiently, which is the basis for both academic achievement and lifetime learning. This paper emphasizes the value of providing special education teachers with training in research-proven reading interventions in order to improve student results. Evidence-based reading therapies, which target particular reading issues and advance reading competency, have gained popularity. This study describes the essential elements of extensive training courses created to give special education instructors the information and abilities they need to apply research-based reading interventions. The research analyzes the many facets of such training programs, including material selection, instructional methodologies, assessment methods, and continuous professional development, drawing on recent literature and educational practices. The study also explores the advantages of providing special education teachers with training in research-based reading interventions for both teachers and students. It looks at how these treatments improve instructors' pedagogical strategies, strengthen their comprehension of reading challenges, and provide them the tools to customize interventions to meet the needs of particular students. The paper also highlights the benefits of evidence-based training for students, who benefit from receiving tailored instruction that can greatly raise their reading comprehension, reading fluency, and general academic engagement. In conclusion, this research effectively address the varied learning needs of students with reading difficulties, it is crucial that special education teachers receive training in research-based reading interventions. Teachers can create a more welcoming and encouraging learning environment and eventually enable students to achieve higher levels of literacy and academic success by incorporating scientifically established strategies into their teaching practices.

Keywords: *Evidence-Based Reading Interventions, Instructional Methodologies, Pedagogical Strategies, Special Education Teachers.*

Introduction

In the past, reading education was not provided to students with intellectual disabilities since it was not thought that they would learn to read (Koritsas & Iacono, 2011). The cultural expectations for this group of learners have changed over the years, and now it is expected that children and adolescents with intellectual disabilities will get literacy education and benefit from it (Reichow et al., 2019). The Individuals with Disabilities Education Improvement Act of 2004 (IDEA; 2004) and No Child Left Behind (NCLB; 2002) are two federal laws that require schools to improve reading results for all children, including those with disabilities. These regulations mandate that all students receive age-appropriate, relevant, and evidence-based reading instruction that fosters achievement in the least restrictive setting (LRE). Recent data, however, indicates that just 9% of kids with disabilities and 40% of students without disabilities tested at proficient or above levels in eighth-grade reading (Council for Exceptional Children (CEC), 2013). Additionally, only 3% of students with ID scored proficient on a statewide reading test (Trexler, 2013). This circumstance demonstrates the necessity for general and special educators to find

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and use efficient reading instruction methodologies, preferably focusing on various reading components, for both kids with and without impairments (Afacan et al., 2019)

For many students with intellectual disabilities, reading proficiency is considered a difficulty and that is due to a number of problems, including memory deficits, concentration deficits, distractibility, and delays in social behaviors that affect participation in reading instruction (Onyekuru & Njoku, 2012; Westling & Fox, 2009). Research on effective interventions for boosting reading skills for students with intellectual disabilities has increased as a result of this change in societal expectations (Reichow et al., 2019). Globally, research has shown that these deficits can be overcome when special education teachers implement evidence-based practices EBPs in teaching students with ID. Evidence-based practices (EBPs), which are thought to be essential for enhancing academic, social, and behavioral outcomes for students with ID should be implemented by teachers to fulfill the student's needs (Cook, 2011; Downing, 2010). Research has also proved that evidence-based practices are associated with increased student academic accomplishment (Moon et al., 2021).

One of the most popular type of reading instruction for students with ID is the sight word instruction (SWI) (Browder et al., 2006). The development of reading skills and the capacity to learn new things on a continuous basis are greatly aided by sight words (Hayes, 2016). For all children, sight word education is essential, but it has been shown to be particularly effective for kids with disabilities. According to Alberto et al. (2013), "Sight word training is the primary format of reading education for students with mild to severe intellectual disability" (p. 332). Students with ID find it even harder to learn to read, especially words with irregular sound patterns, which is why they need to acquire sight words as they will be better able to communicate with adults and their peers by learning crucial sight words and phrases and comprehend what is happening in the world around them (Hayes, 2016). Sight word instructions help students to be able to recognize sight words instantly without having to decode and concentrate more on the meaning of the text than on the details of each individual word (Ehri, 2005). Additionally, learning sight words will boost a student with ID's confidence in their reading skills, which will help them feel less frustrated when learning to read (Yaw, 2012).

Despite the fact that EBPs are one of the most crucial contemporary concerns in special education, Alhossen (2017) conducted a thorough literature analysis and discovered that the Arab world, including Saudi Arabia, seldom ever discusses or employs these practices (Alhossen, 2017). Recently, the Saudi government has announced its Vision 2030 which is a strategic framework that aims to develop all sectors including education and health. The purpose of Vision 2030 is "to be an exemplary and leading nation in all aspects including inclusive education being provided to students with ASD and ID" (Vision 2030, 2020). According to Al-Assaf (2017), the educational reforms were enacted to ensure that education was accessible for students with disabilities in order for them to achieve independence and inclusion in society. Also, the Saudi vision 2030 aspires to advance all spheres of life, including effective learning environment for students with disabilities" (Vision 2030, 2020). This shift requires educational professionals are prepared with the knowledge of skills necessary to support students with disabilities (Olson, 2018).

Regrettably, teachers are not given the necessary training to handle special education needs in the classroom (Alqahtani, 2022). Considering the above discussion, the current study intentions to analyze the evidence-based reading intervention to provide training special education teachers to effectively and efficiently utilize the use of reading intervention to boost students learning and capabilities.

Literature Review

In order to study the effectiveness of various training methodologies and their effects on student outcomes, this review of the literature tries to integrate recent research on the subject. Similarly, this

section also provides insights into the special training education through various strategies especially the reading notion of training is under the consideration which the previous authors highlight.

Alatifi et al. (2023) discussed that teachers in special education are essential in helping kids who struggle with learning, especially in the area of reading. These educators must be trained in evidence-based techniques in order to guarantee the efficacy of interventions. An increasing amount of research in Saudi Arabia has concentrated on the instruction of special education instructors in research-based reading interventions. Evidence-based reading interventions are a crucial tool for enhancing children with disabilities' reading performance. However, a lot of special education teachers lack the skills and training required to carry out the interventions successfully. As a result, it's possible that children with disabilities won't get the assistance they require to improve their reading ability.

Almutairi et al. (2022) added that efficacious training programs for special education instructors to implement research-based reading interventions have been the subject of recent research. These initiatives seek to arm educators with the information and abilities required to carry out these interventions successfully. A professional development program for special education instructors on the implementation of evidence-based reading interventions was reviewed by Wakeman et al. (2022) discussed the online training modules and coaching sessions were part of the curriculum. The findings demonstrated that program participants had better student outcomes and were more likely to apply research-based reading interventions in the classroom. Moreover, Aldosari et al. (2022) evaluated the effectiveness of a professional development program that included coaching and feedback from special education teachers. The program focused on evidence-based reading interventions and was delivered through online modules and in-person coaching sessions.

Likewise, Zakarneh et al. (2018) assessed the efficiency of a professional development program for teachers of special education on the application of evidence-based reading interventions. The program includes coaching centers and online training courses. Another study by Aldehami (2022) evaluated the efficacy of a professional development program for special education teachers that included coaching and feedback. The program, which was offered through online modules and in-person coaching sessions, concentrated on evidence-based reading interventions.

The objective of another study by Benner et al. (2023) is to assess the efficiency of a professional development program for special education instructors in Saudi Arabia in applying evidence-based reading interventions. The study included a pre-test/post-test design. The outcome demonstrated that the training was successful in enhancing teachers' knowledge of and aptitude for using evidence-based reading interventions. According to the study, professional development courses can be a useful instrument for raising the standard of Saudi Arabia's special education services. Even though the number of teaching assistants who work with students who have special educational needs has grown recently, there has not been much research on them (Chan et al., 2020). Teaching assistants assist many children with disabilities, and their employment is acknowledged as an effective strategy for assisting students with disabilities. Teaching assistants are seen as essential because they enhance teacher-supported learning while allowing teachers to concentrate on the quality of their instruction. Teaching assistants also make sure that each student gets the individualized attention they require (Cassim et al., 2020).

Alatifi et al. (2023) in Saudi Arabia consider the usefulness of a training program designed to enhance special education teachers' knowledge and abilities in putting evidence-based interventions into practice discussed in the article. Another current research by (Aldehami et al., 2022) looked into how a professional development course affected how special education instructors used evidence-based reading interventions. The study included evaluations of teachers' pre- and post-training knowledge, attitudes, and skills in relation to evidence-based practices. The results showed that teachers' comprehension of evidence-based interventions and their capacity to use them successfully in the

classroom had greatly increased thanks to the professional development program.

Landon-Hays et al. (2020), investigate the purpose of this study the use of virtual reality (VR) training as a novel strategy to improve the expertise and self-assurance of special education in instructors in implementing research-based reading interventions. Moreover, the impact of online training modules for special education teachers that focused on research-based reading interventions was investigated in this study. The study by (Cook et al., 2020) included pre-and post-training assessments with instructor interviews as part of a mixed-methods strategy. The outcomes showed that online training was successful in improving instructors' awareness of and proficiency with evidence-based practices. The participants also valued the flexibility of online training very much.

After, the long-term effects of evidence-based reading interventions given by certified special education instructors were investigated in this longitudinal study by Grapin et al. (2019). Over the course of a year, researchers monitored the reading proficiency of the students receiving the interventions. The findings showed considerable gains in students' reading comprehension and skills, indicating that the implementation of evidence-based teaching strategies by qualified teachers had a favorable impact on student outcomes.

Evidence-based reading interventions are teaching methods that have been shown through empirical research to improve students with disabilities' reading abilities. Given the difficulties they have learning to read, kids with Intellectual disabilities are especially in need of these interventions Merritt et al. (2022). However, the knowledge and abilities of the teachers carrying out these interventions play a significant role in their success. One more research highlights the necessity of adequately training special education teachers to effectively implement evidence-based reading interventions. Training programs should focus on building teachers' understanding of reading development, the specific needs of students with disabilities, and the mechanics of evidence-based interventions Tăbăcarua et al. (2022).

Additionally, teachers in special education must have a solid background in the science of reading, including instruction in phonemic awareness, phonics, fluency, vocabulary, and comprehension (Sam et al., 2020). To aid in decision-making during the planning of interventions, training should provide comprehensive knowledge of these elements. Billingsley et al. (2019) added that to aid instructors in acquiring the skills needed to offer interventions, effective training programs should include tactics including modeling, mentoring, and feedback. These tactics make it easier to apply theoretical information in the classroom in a useful way.

The conclusion of this literature demonstrates Saudi Arabia's growing emphasis on providing special education instructors with training in research-proven reading treatments. According to the research, several training strategies, including virtual reality training, online modules, and professional development programs, have shown promise in improving teachers' knowledge, confidence, and use of evidence-based methods. Additionally, the effects of such interventions include better reading results for pupils who struggle with learning. For the purpose of maximizing support for children in special education settings, more study is required to investigate the long-term viability and scalability of these training methodologies.

Overall, these studies indicate that teaching special education instructors in Saudi Arabia to apply evidence-based reading interventions can be accomplished through professional development programs that incorporate coaching and feedback. Students with impairments can get the assistance they require to improve their reading abilities by giving teachers the knowledge and abilities required to carry out these interventions successfully.

Current Study

Upon discussing the above literature which has discussed the special education training interventions however, Ashur et al. (2022) highlighted that a key policy priority should consist of long-term planning,

not only to spread awareness of the concept of EBP but also the enactment of strict laws compelling special education schools and centers to apply criterion-referenced tests to ensure teachers are familiar with such practices. More study is still required in this area to ascertain the most efficient training strategies and to spot any implementation challenges. Additionally, there is a study deficit about how well these interventions work in Saudi Arabia for kids with impairments to improve long-term reading outcomes.

Concerning the comments from the author, professional development programs with coaching and feedback can be successful in preparing special education instructors in Saudi Arabia. Relating to this indicated point, the current study aims at provide the reading-intervention to utilize evidence-based reading interventions. Unfortunately, no investigation has evaluated the Saudi special education teachers' knowledge and experiences of the sight word instruction. Additionally, no previous research has focused on training Saudi special education teachers to use EBPs, especially the sight words instruction.

Thus, the purpose of this study was to 1- investigate Saudi special education teachers' experiences towards the sight word reading instruction, 2- train Saudi special education teachers to apply sight word instruction, 3- investigate their perspectives and attitudes of their ability and confidence to implement sight word instruction when working with students with ID.

Research Questions

The study was guided by the following research questions:
- What are the previous experiences of special education teacher using sight-words instruction when teaching students with ID?
- How positively do special education teachers who have completed the online training feel about the sight-words instruction?
- To what extent are special education teachers willing to implement sight-words instruction when teaching students with ID?

Method

Setting and Participants

In this study, 38 special education teachers completed an online training module on the use and implementation of sight word instruction. Approximately, 55.3% of participants were males (n = 21) while 44.7% of participants were females (n = 17). This study did not evaluate the age, ethnicity, or educational background of the participants. Also, 50% of participants reported they have worked with students with ID (n = 19) while the remaining number of participants, 50%, have only worked with students with either LD or autism (n = 19).

Instrument

The instrument of the study contained three part which were: pre-module survey, the online training module, and the post-module survey. The pre-module survey served as a tool to gather demographic information as well as to measure the teachers' experiences and previous use of the sight word instruction (n = 6). The online training materials (e-module) which contained training materials that were designed as an online course using PowerPoint slides, audio recordings, and video demonstrations of the sight word components and its implementation.

PowerPoint can be a crucial tool for improving student learning and for supplying the class with material. Peer-Mediated Instruction, Applied Behavior Analysis, and Direct Instruction are a few instances of

evidence-based interventions that special education teachers may use. It has been demonstrated that these approaches help kids with impairments achieve better academic and behavioral outcomes. To assist special education instructors in learning how to apply evidence-based interventions in their classrooms, there are numerous online training courses and e-modules accessible.

To help teachers in understanding how to utilize the interventions effectively, these training sessions frequently incorporate materials like PowerPoint slides, videos, and audio. For PowerPoint training 15 slides have been produced based on training special education teachers and its implementation and the duration of these slides is 10 minutes. Similarly training programs include videos of evidence-based interventions that special education teachers might use for students with disabilities. The duration for the video module was about 5 minutes.

Likewise, training include an audio program based on training special education teachers and maintained the duration of 10 minutes in which all the aspects concerning training and its implementation have been discussed and recorded. Moreover, the post-module survey asked participants about their perspectives and attitudes regarding the importance of sight word instruction as well as their confidence and willingness of implementing sight word interventions when working with students with ID (n = 4).

Data Collection and Procedures

The researcher emailed the administration of the special education affairs at Saudi ministry of Education in order to gather data. The emails served as recruitment tools, outlining the study and including a link to the pre-module survey, the e-module and the post-module survey. The link was sent to the administration of the special education affairs to share with their special education teachers. Participants were given the reassurance that the online surveys would be kept private and that they could withdraw from the study at any point prior to completing it. The process of gathering the data took about one and a half months. To improve response rates, the researcher sent multiple reminders throughout the process. The researcher was able to download the collected data, which were shown on an excel datasheet, once participants had submitted their survey responses using google forms.

Research Design and Data Analysis

This study used a quantitative survey approach to gather opinions from Saudi Arabia's special education teachers about their experiences and attitudes related to the sight word instruction. The participants completed a pre-module survey, an online training module, and a post-module survey. The pre-module survey used a three-point Likert scale (1 = no, 2 = maybe, 3 = yes). The online training module provided the participants with PowerPoint slides, audio recordings, and video demonstrations of the sight word components and its implementation. Prior to the online training module, the participants completed a pre-module survey which gathered demographic information as well as measured the participants' experinces and previous use of the sight word instruction. Following online training module, the participants completed a post-module survey where they were asked questions about the sight word training module in an effort to elicit their opinions on (a) the potential usefulness of the intervention, (b) the need for the intervention among students, (c) the teacher's confidence in carrying it out, and (d) the likelihood that teachers would use the intervention. In this study, a training module on the application of Sight Word Instructions was completed online by 38 special education instructors. The statistical data were then descriptively evaluated (i.e., number, mean, SD) to meet the required objectives or goals of the study.

On a three-point Likert scale (1 = not at all to 3 = a great lot), teachers provided their responses for the post-module survey. After the participants completed the three parts of the study, data was collected

and organized on an excel spreadsheet. After downloading the excel spreadsheet, the responses were converted into numerical values (1 = no, 2 = maybe, 3 = yes) and (1 = not at all to 3 = a great lot). The numerical data were then descriptively evaluated (i.e., number, mean, SD).

Limitations of Methodology

The study has observed some limitations concerning the methods used in conduct of the current study including,

- Being unable to interact with people in distant places.
- Likelihood of survey fraud may high
- Chances of errors or presence of biases responses
- Survey Exhaustion
- Partiality in response
- Sample issues

Ethical Considerations

A set of rules that direct your study designs and procedures are known as ethical considerations in research. Voluntary engagement, informed permission, anonymity, confidentiality, the possibility of harm, and results communication are some of these principles. This current study has followed and adhered to the required ethics, such as maintaining the participants` information and privacy to further strengthen the research and meet the standard of research conduct.

Results

Experiences of Participants Related to Swi

In regard to the experiences of special education teachers related to the sight-word instruction, participants were asked about their previous knowledge of sight-words instruction and their previous use of sight-words instruction when teaching reading to students with ID. Upon asking regarding previous experiences such as "What are the previous experiences of special education teacher using sight-words instruction when teaching students with ID?" They responded with NO using the 3-Likert scale, the percentage of the respondents calculated as 65.8%, while 34.2% of participants agreed that they have previous experience with the asking question. Because they didn't have any previous experience about sight-words instruction regarding implementation.

Regarding the participants' previous knowledge of sight-words instruction, the majority of participants, reported that they haven't heard of sight-words while only participants stated that they have heard of the sight-words instruction as a tool to teach students with ID (M = 33.3, SD 0.85). Similarly, while asking the question regarding the participants' such as: "To what extent are special education teachers willing to implement sight-words instruction calculated when teaching students with ID?"

They responded with NO using the 3-Likert scale, the percentage regarding the participants' previous use of sight-word instruction; the results showed that most participants, 68.4%, have never implemented sight-words instruction, while 31.6% of participants reported they have used sight-words instruction when teaching reading to students with ID (M = 34.0, SD 0.92). Since they didn't have knowledge about the implemented sight-words instruction. Overall, the results indicated that the majority of participants have never heard or implemented sight-word instruction in reading classes for students with ID. See

table 1 for statistical information (i.e., number, mean, SD) related to the experiences of participants.

Attitudes of Participants Related to Swi

Items in this section were divided into four parts which were: the potential usefulness of the intervention, (b) the need for the intervention among students, (c) the teacher's confidence in carrying it out, and (d) the likelihood that teachers would use the intervention. In terms of the potential usefulness and the students' need for the sight-words instruction. Upon asking regarding positive response of the special education teachers such as: "How positively do special education teachers who have completed the online training feel about the sight-words instruction?

They respond with YES using the 3-Likert scale, the percentage of the respondents calculated was 74.4% of participants agreed that they believed the sight-words instruction with the asking question. Because they thought that teaching sight words was pertinent to the needs of students. 74.4% of participants believed that the sight-words instruction is useful and relevant to their students' needs. Also, in regard to the participants' confidence in carrying the sight-words instruction out and the participants' likelihood to use sight-word instruction, participants reported feeling confident that they could implement sight-words instruction and that they were likely to use it in their reading classes for students with ID.

Thence, the results indicated that the majority of participants reported high levels of acceptance, confidence and willingness to use the sight-words instruction in the future. The implementation of sight word instruction significantly boosted the members' reading achievements, comprehension, and including word recognition. In terms of reading comprehension, the low-achiever group fared much better. Because they increased the participants' oral reading fluency, accuracy, and speed, the high-achieving group saw a considerable improvement in speed. Finally, some pedagogical implications are offered because the applicants also held positive feedback on the use of sight word instruction. See table 2 for statistical information (i.e., number, mean, SD) related to the attitudes of participants.

Discussion

In this section, the previous researcher of special education in the Saudi Ministry told that they didn't have any previous experience with sight-words instruction regarding implementation. Regarding the participants' previous knowledge of sight-words instruction, the majority of participants reported that they haven't heard of sight-words while only participants stated that they have heard of the sight-words instruction as a tool to teach students.

Using a quantitative survey approach, Saudi special education teachers completed a pre-module survey that examined the participants' experiences and prior use of the sight word teaching in addition to gathering demographic data. After that, the participants completed an online training materials (e-module) which featured training materials that were intended as an online course utilizing PowerPoint slides, audio recordings, and video demonstrations of the sight word components and its application. In regard to the experiences of special education teachers related to the sight-word instruction, participants were asked about their previous knowledge of sight-words instruction and their previous use of sight-words instruction when teaching reading to students with ID. They responded with NO using the 3-Likert scale, the percentage of the respondents calculated as 65.8%, while 34.2% of participants agreed that they have previous experience with the asking question. Because they didn't have any previous experience about sight-words instruction regarding implementation. The results of this study indicated that most participants had a low level of knowledge and use of sight words instruction.

But in recent research studies in Saudi Arabia Efficacious training programs for special education instructors to implement research-based reading interventions have been subjected. These initiatives

seek to arm educators with the information and abilities required to carry out these interventions successfully. A professional development program for special education instructors on the implementation of evidence-based reading interventions was reviewed in one study (Aldosari et al., 2022) discussing online training modules and coaching sessions were part of the curriculum. The findings demonstrated that program participants had better student outcomes and were more likely to apply research-based reading interventions in the classroom.

Inclusive, these recent research that we discussed in the literature review is that the teachers in Saudi Arabia have more background knowledge and skills in implementing evidence-based reading interventions related to sight-word instruction. But according to this author by (Alatifi et al., 2023) in, Saudi Arabia considers the usefulness of a training program designed to enhance special education teachers' knowledge and abilities in putting evidence-based interventions into practice discussed in the article.

In terms of the potential usefulness and the students' need for sight-word instruction. Upon asking regarding the positive response of the special education teachers. They responded with YES using the 3-Likert scale; the percentage of the respondents calculated was 74.4% of participants agreed that they believed the sight-words instruction with the asking question. Students with intellectual disabilities or reading difficulties to succeed academically, special education teachers must be trained to implement evidence-based reading treatments. Evidence-based treatments are methods that have been thoroughly studied and shown to be successful in enhancing reading abilities and results. These therapies have proven successful in several studies and controlled trials and are supported by scientific research. When talking about the education of special education instructors in evidence-based reading interventions, keep the following points in concentration:

- Teachers in special education must be knowledgeable about the different kinds of learning disorders and reading issues that may be present in their students. They can successfully customize therapies to fulfill different requirements thanks to this insight.
- Special education instructors need to be trained on how to carry out interventions with fidelity if they are to be successful. Fidelity is a term used to describe how closely prescribed procedures and criteria are followed when delivering interventions.
- Teachers need to receive training on how to use data to track student development and modify interventions as necessary. Regular evaluations can help pinpoint problem areas and confirm that interventions are improving kids' reading abilities.
- Teachers' knowledge and abilities in implementing research-based reading interventions can be improved by ongoing professional development and collaboration with other educators and professionals. Peer observations, online forums, workshops, and seminars are all possible formats for this collaboration.
- For the benefit of the students' general development, parents should be involved in the process. Learning can be reinforced by teaching instructors how to speak with parents about evidence-based interventions and how they can assist their child's reading at home.
- Establishing a school culture that prioritizes evidence-based practices and encourages continuous professional growth can help these treatments be implemented more successfully. A key part of creating such an environment is played by school administrators.
- It is crucial for special education teachers to keep up with the most recent research on evidence-based therapies and modify their teaching strategies accordingly.

In conclusion, special education teachers must get training in evidence-based reading treatments if they are to help children with intellectual disabilities or reading issues improve their reading abilities and academic

performance. Students are more likely to succeed in reading and other subjects when instructors are given the information, expertise, and tools necessary to carry out these interventions successfully.

Limitations of The Research

It may be challenging to generalize research findings across many contexts and groups, which could be a possible restriction of studies on preparing special education teachers to implement evidence-based interventions. A training program, for instance, that is successful in one district of a school may not be successful in another district with a different student population and different resources. Evidence-based therapies might also be difficult to put into practice in real-world situations because of things like scarce resources, a lack of support from superiors or peers, and conflicting demands on teachers' time and attention.

These restrictions point to the need for additional study to find practical methods for applying evidence-based therapies in various contexts and groups. The effectiveness of these interventions may vary depending on the setting and student demographic, which makes researching and teaching special education instructors to apply them problematic. It may be challenging to gauge the long-term impact of these interventions on students' outcomes, which could be another possible restriction of research on educating special education instructors to apply evidence-based interventions. While some studies have demonstrated that evidence-based interventions can enhance academic and behavioral results in the near term, it is not apparent if these improvements are maintained over the long run. Assessing the effects of these interventions on students with complex needs or multiple disabilities may also be difficult. These restrictions point to the need for additional study to find practical techniques to gauge the long-term impact.

The fact that it could be challenging to ensure the reliability of the intervention protocols is another possible restriction of research on preparing special education teachers to apply evidence-based therapies.

Conclusion

In conclusion, special education teachers need to be trained in evidence-based reading interventions since it significantly impacts how well students with different learning needs progress academically and personally. With the knowledge, techniques, and resources provided by this thorough and methodical approach to training, educators may successfully address the issues that kids with reading disabilities experience. Research and evidence-based reading interventions guarantee that instructional strategies are founded on tested efficacy. Educational institutions invest in the success of their students by providing special education teachers with training in these interventions, creating a nurturing environment where each person can flourish.

Such instruction has an impact that goes well beyond the classroom. Teachers that are skilled at using evidence-based treatments not only help their students reading abilities, but also give them the self-assurance and drive to continue their education. As a result, individuals with special needs may experience an improvement in their self-esteem and general quality of life as they acquire the core abilities needed to participate more fully in academic and social environments. However, it's crucial to understand that efficient training is a never-ending process. In order to offer their kids, the most cutting-edge and effective treatments, special education instructors must continue to be devoted to professional development as educational research changes and new approaches are developed.

In the grand scheme of education, providing special education teachers with training in research-proven reading interventions demonstrates a dedication to justice, inclusivity, and the all-around development of every student. By providing educators with the knowledge and abilities they require, we open the door for a more accepting and encouraging educational environment where each learner may thrive and make

a valuable contribution to society in their own special and individual ways.

Funding Sources

References

Alatifi, N. M., Gray, K. M., & Hastings, R. P. (2023). Knowledge and reported use of evidence-based practices by early intervention professionals working with autistic children in Saudi Arabia. Research in Autism Spectrum Disorders, 105, 102182.

Alatifi, N. M., Gray, K. M., & Hastings, R. P. (2023). Knowledge and reported use of evidence-based practices by early intervention professionals working with autistic children in Saudi Arabia. Research in Autism Spectrum Disorders, 105, 102182.

Alberto, P. A., Waugh, R. E., Fredrick, L. D., & Davis, D. H. (2013). Sight Word Literacy: A Functional-Based Approach for Identification and Comprehension of Individual Words and Connected Text. Education and Training in Autism and Developmental Disabilities, 48(3), 332-350.

Aldehami, S. (2022). Saudi Arabia Special Education Teachers' Attitudes toward Assistive Technology Use for Students with Intellectual Disability. Contemporary Educational Technology, 14(2).

Aldosari, M. S. (2022). Perceptions of Saudi Arabian school teachers in private general education schools toward the inclusion of students with disabilities. Research in Developmental Disabilities, 130, 104342. Chan, E. S., Ho, S. K., Ip, F. F., & Wong, M. W. (2020). Self-Efficacy, work engagement, and job satisfaction among teaching assistants in Hong Kong's Inclusive Education. SAGE Open, 10(3), 1-11.

Almutairi, H. (2022). Online Training for Special Education Teachers on Supporting Behavior for Students with Intellectual Disabilities in Saudi Arabia. Eurasian Journal of Educational Research, 101(101), 60-71.

Ashur, A. T., & Bagadood, N. H. (2022). Evidence-Based Practices (EBP) in Teaching Students with Intellectual Disabilities in Saudi Arabia: Obstacles and Solutions. Int J Edu Sci, 36(1-3), 101-111.

Benner, G. J., Filderman, M. J., Barnard-Brak, L., Pennefather, J., Smith, J. L. M., & Strycker, L. A. (2023). Evidence of efficacy of the Integrated Literacy Study Group professional learning program to enhance reading instruction for students with emotional and behavioral disorders. Psychology in the Schools, 60(1), 182-198.

Billingsley, B., Bettini, E., & Jones, N. D. (2019). Supporting special education teacher induction through high-leverage practices. Remedial and Special Education, 40(6), 365-379.

Browder, D., Wakeman, S., Spooner, F., AhlgrimDelzell, L., & Algozzine, B. (2006). Research on reading instruction for individuals with significant cognitive disabilities. Exceptional Children, 72, 392-408.

Cassim, N., & Moen, M. (2020). Contribution of teaching assistants to quality education in Grade 1 classrooms. South African Journal of Education, 40(1), 1-9.

Cook, B. G. (2001) 'A comparison of teachers' attitudes toward their included students with mild and severe disabilities.' The Journal of Special Education, 34 (4), pp. 203–13. doi: 10.1177/002246690103400403.

Cook, B. G., Collins, L. W., Cook, S. C., & Cook, L. (2020). Evidence-based reviews: How evidence-based practices are systematically identified. Learning Disabilities Research & Practice, 35(1), 6-13.

Downing, J. (2010). Teaching students with moderate to severe intellectual disabilities in general education classrooms: Foundational beliefs. SAGE Publications Ltd.

Ehri, L. (2005). Learning to read words: Theory, findings, and issues. Scientific Studies of Reading,

9(2), 167-188. http://dx.doi.org/10.1207/sl532 799xssr0902_4

Grapin, S. L., Waldron, N., & Joyce-Beaulieu, D. (2019). Longitudinal effects of RtI implementation on reading achievement outcomes. Psychology in the Schools, 56(2), 242-254.

Koritsas, S., & Iacono, T. (2011, January 1). Secondary Conditions in People With Developmental Disability. American Journal on Intellectual and Developmental Disabilities, 116(1), 36–47. https://doi.org/10.1352/1944-7558-116.1.36

Landon-Hays, M., Peterson-Ahmad, M. B., & Frazier, A. D. (2020). Learning to teach: How a simulated learning environment can connect theory to practice in general and special education educator preparation programs. Education Sciences, 10(7), 184.

Merritt, E. G., Stern, M. J., Powell, R. B., & Frensley, B. T. (2022). A systematic literature review to identify evidence-based principles to improve online environmental education. Environmental Education Research, 28(5), 674-694.

Moon, S., Jackson, M. A., Doherty, J. H., & Wenderoth, M. P. (2021). Evidence-based teaching practices correlate with increased exam performance in biology. PLOS ONE, 16(11), e0260789. https://doi.org/10.1371/journal.pone.0260789

Onyekuru, B., & Njoku. (2012). Classroom management of mental retardation. International Journal of Learning & Development, 2(5), 105-111. doi: 10.5296/ijId.v2i5.2369

Reichow, B., Lemons, C. J., Maggin, D. M., & Hill, D. R. (2019, December 5). Beginning reading interventions for children and adolescents with intellectual disability. Cochrane Database of Systematic Reviews, 2019. https://doi.org/10.1002/14651858.cd011359.pub2

Sam, A. M., Cox, A. W., Savage, M. N., Waters, V., & Odom, S. L. (2020). Disseminating information on evidence-based practices for children and youth with autism spectrum disorder: AFIRM. Journal of autism and developmental disorders, 50, 1931-1940.

Tăbăcarua, C. D., Stana, M. M., Langaa, C., Dumitrua, G., Lazăra, A. N., Kuparinenb, K., .. & Koundourakic, C. (2022). Teachers' readiness to support effective inclusion of students with specific learning disorders in higher and adult education. Journal of Educational Sciences & Psychology, 12(2).

Wakeman, S. Y., Ahlgrim-Delzell, L., Gezer, T., Pennington, R., & Saunders, A. (2022). Using action research to develop a professional development and coaching package for educators within inclusive reading instruction. Disabilities, 2(4), 641-661.

Westling, D. L., & Fox L. (2009). Teaching students with severe disabilities, 4th ed. Upper Saddle River, NJ: Merrill/Pearson.

Yaw, J., Skinner, C. H., Orsega, M. C., Parkhurst, J., Booher, J., & Chambers, K. (2012). Evaluating a Computer-Based Sight-Word Reading Intervention in a Student with Intellectual Disabilities. Journal Of Applied School Psychology, 28(4), 354-366.

Zakarneh, B. M. (2018). Effectiveness of E-learning mode for teaching English language in Arab Universities. International Journal of Applied Linguistics and English Literature, 7(7), 171-181.