

Dr. Badriah Alotaiby

Systematic literature review: The Perceptions of Learning Disabilities Teachers Towards the Use of Assistive Technology in Saudi Arabia

01. Introduction

Teachers in special needs education are vital because they are primarily responsible for directly educating the learning disabilities' students, and hence, their outlook and ideas are essential in the adaptation and implementation of assistive technology (Patten & Newhart, 2017). Therefore, the purpose of this study is to present a systematic literature review of the perception of learning disabilities teachers regarding the use of assistive technology in Saudi Arabia. Saudi Arabia is a quickly developing country that has invested in improving the special needs education system to ensure they have access to quality education. For the study on perceptions of learning disabilities teachers towards the use of assistive technology in Saudi Arabia, there is a need for comprehensive research to determine the factors influencing the implementation of assistive technology and how the teachers' perceptions play a part in the use of assistive technology in their classrooms. These teachers' perceptions will be revealed after conducting this comprehensive research to determine the factors influencing the implementation of assistive technology in learning disabilities classes and how these teachers' perceptions play a part in the use of assistive technology in their classrooms. To achieve that, this study reviews previously published studies of the field of special needs education system in Saudi Arabia, specifically studies discussing the factors influencing teachers' perception on the implementation of assistive technology.

02. Methodology

- inclusion criteria
- exclusion criteria

04. Results/Findings

Article's number	Primary author/s (year of publication)	Findings on the perceptions of special needs teachers
1	Aldabas, R. (2015).	While there is significant progress, more needs to be done to ensure fully special education reforms In Saudi Arabia.
2	Alfaraj, A., & Kuyini, A. (2014).	Technology enhances learning among people with disability
3	Alharbi, S. (2020).	Assistive technology helps students with special needs to learn better
4	Alkahtani, K. (2013).	Teachers knowledge about assistive technology enhanced student learning
5	Alnahdi, G. (2014).	Assistive technology help to advance universal learning
6	Alquraini, T. (2011).	While there is progress in terms of delivery, special education faces various challenges
7	Tsuei, M., & Hsu, Y.-Y. (2019).	Parents are adamant for the integration of technology on student learning
8	Vatanartiran, S., & Karadeniz, S. (2015).	Various things necessitate the integration
9	Yang, R., Yang, J., Yuan, H. R., & Lee, J. (2017).	Techno stresses affect the impact of technology in teaching students with disabilities.
10	Varrier, D., Dumke, E. K., Abrams, L. M., Conklin, S. B., Barnes, J. S., & Hoover, N. R. (2017).	The teachers and students experience of one-to-one technologies in the classroom

Types of Assistive Technology

Article's number	APA Citation	Tech Tools available at the school	Implementation of Learning Technology
1	Aldabas, R. (2015).	Smartphones	General
2	Alfaraj, A., & Kuyini, A. (2014).	Computer	Speech-to-text software
3	Alharbi, S. (2020).	Computer	Proofreading software.
4	Alkahtani, K. (2013).	device such smartphones	General
5	Alnahdi, G. (2014).	Smartphones	General
6	Alquraini, T. (2011).	Computers	Text-to- speech assistive tools.
7	Tsuei, M., & Hsu, Y.-Y. (2019).	Smartphones	General
8	Vatanartiran, S., & Karadeniz, S. (2015).	Smartphones	General
9	Yang, R., Yang, J., Yuan, H. R., & Lee, J. (2017).	computers and smartphones	General
10	Varrier, D., Dumke, E. K., Abrams, L. M., Conklin, S. B., Barnes, J. S., & Hoover, N. R. (2017).	computers and smartphones	General

Coding of Data

The coding process involves identifying and highlighting the vital data in the texts or other items in data collection.

The method is also essential in easier analysis and examination of data (Patten & Newhart, 2017). For this study, the technique of data-driven coding was used, which relied on an analysis of the existent data to determine methods of creating code from the data patterns.

Research Question	Subsections
RQ1: What are the perceptions of special needs teachers, especially teachers who teach students with learning disabilities, on the use of assistive technology in Saudi Arabia schools?	<ol style="list-style-type: none"> 1. Research questions 2. Sample size 3. Research design 4. Definition of key terms 5. Study findings on the perceptions of special needs teachers, especially teachers who teach students with learning disabilities, on the use of assistive technology in Saudi Arabia schools.
RQ2: How do special needs teachers, especially teachers who teach students with learning disabilities, implement assistive technology in Saudi Arabian schools?	<ol style="list-style-type: none"> 1. Types Assistive technology 2. Implementation of Learning Technology
RQ3: What does the literature say about the factors influencing these teachers' perceptions and implementation of assistive technology?	<ol style="list-style-type: none"> 1. Types of influencing factors 2. Effects of these factors on teachers' perceptions and implementation of assistive technology

Table 1: Research Questions and their Subsections

Studies and their Research Design

Article's number	Primary author/s (year of publication)	Research Question(s)	The type of Research Design
1	Aldabas, R. (2015).	What is the history of special education in Saudi Arabia?	Empirical review
2	Alfaraj, A., & Kuyini, A. (2014).	What type of technology is used to support down syndrome in Saudi Arabia?	Case Study
3	Alharbi, S. (2020).	To what extent is teachers knowledge and use of Assistive technology in Saudi Arabia?	Case study using an interview methods
4	Alkahtani, K. (2013).	What is the level of knowledge about assistive technologies in Saudi Arabia?	Case study using survey methods
5	Alnahdi, G. (2014).	How does Assistive technology affect universal learning?	Descriptive Literature review
6	Alquraini, T. (2011).	What are the dynamics of special educations?	Empirical review
7	Tsuei, M., & Hsu, Y.-Y. (2019).	What are the parents perception on technology integration?	Case study using survey methods
8	Vatanartiran, S., & Karadeniz, S. (2015).	What is the need for technology integrations?	Empirical review
9	Yang, R., Yang, J., Yuan, H. R., & Lee, J. (2017).	What is the impact of techno-stress ?	Case study using survey methods
10	Varrier, D., Dumke, E. K., Abrams, L. M., Conklin, S. B., Barnes, J. S., & Hoover, N. R. (2017).	What are the teachers and students experience of one-to-one technologies in the classroom?	Empirical review

06. Conclusion

In conclusion, the literature search offers exciting insights into the level of assistive technologies by learning disability teachers in Saudi Arabia. In any case, the examination makes it bare that many reasonable steps have been made so far in terms of the use of assistive technologies. Nonetheless, more can be done, and these can only be achieved if the continuous emphasis is given on the topic. It is essential to mention that more research on emerging technological applications needs to be done.