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The Effectiveness of a Training Program in Improving the Competencies and Skills of Female Specialists to Work with People with Visual Impairments

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Abstract

This study aimed to evaluate the effectiveness of a training program in improving the competencies and skills of female specialists working with people with visual impairments and to determine if there were any statistically significant differences in the improvement of competencies and skills due to variables such as specialization, years of experience, prior knowledge of a blind person, and training courses in the field of visual impairment. The study sample consisted of 10 female specialists from special education, visual impairment, and early childhood in Riyadh, Saudi Arabia.

A 70-item scale was used to measure the competencies and skills of female specialists before and after the training program. The scale was divided into five domains: knowledge of visual impairments and their impact on learning, communication and interaction strategies, adaptation of teaching materials and classroom environment, assessment and evaluation strategies, and collaboration and professional development.

The study's results revealed a significant improvement in the competencies and skills of female specialists after participating in the training program, with an average percentage improvement of 41.4%. No statistically significant differences were found in the improvement of competencies and skills due to the variables of specialization, years of experience, prior knowledge of a blind person, and training courses in the field of visual impairment.

In conclusion, the training program was found to be effective in improving the competencies and skills of female specialists working with people with visual impairments. The results highlight the importance of providing specialized training to professionals in this field to support better the learning and development of children with visual impairments.

Keywords: training program, competencies, and skills, female specialists, visual impairments, special education, early childhood, adaptation of teaching materials, assessment strategies, collaboration, professional development

1. Introduction

The integration and inclusion of individuals with visual impairments in society are crucial for their overall well-being, personal development, and participation in various aspects of life. In this context, the role of skilled professionals who can cater to the unique needs of people with visual impairments becomes particularly significant. One such group of professionals includes female specialists, who can substantially impact the field by leveraging their innate empathic and nurturing abilities (Brody & Hall, 2008). This paper delves into the effectiveness of a training program in improving the competencies and skills of female specialists working with people with visual impairments.

The prevalence of visual impairments is a significant concern across the globe. According to the World Health Organization (WHO, 2019), approximately 2.2 billion people have vision impairment or blindness, of which at least 1 billion cases could have been prevented or are yet to be addressed. Given the substantial number of individuals affected by visual impairments, it is critical to invest in adequate training programs that equip professionals with the necessary competencies and skills to work with this population.

Research has consistently demonstrated the importance of specialized training for professionals working with individuals with visual impairments (Erin & Corn, 2014). The effectiveness of a training program depends on its ability to encompass a wide range of topics, including strategies for communication, orientation and mobility, assistive technology, and the development of individualized educational programs (IEPs) (Pogrund, Healy, & Jones, 2014).

The unique needs of individuals with visual impairments require a nuanced understanding and approach sensitive to their differences, preferences, and abilities (Barraga & Erin, 2010); This highlights the importance of a comprehensive training program that prepares female specialists to work effectively with this population. Additionally, gender-specific approaches can be beneficial in certain situations, as female specialists may be better equipped to understand and address their clients' emotional and psychological needs due to their empathic and nurturing qualities (Brody & Hall, 2008).

In recent years, the importance of female specialists in visual impairments has gained increasing recognition. The growing emphasis on gender equity and the need for female role models in various professional sectors have led to an increased focus on empowering and equipping women to excel in their respective fields (UN Women, 2018). By examining the effectiveness of a training program for female specialists working with individuals with visual impairments, we can better understand the potential impact of such programs on the overall well-being and development of the clients they serve.

The current paper explores the effectiveness of a training program in improving the competencies and skills of female specialists working with people with visual impairments. To this end, we will review recent literature and empirical evidence pertaining to the subject. The paper will examine the key components of an effective training program, including its curriculum, teaching methods, and assessment techniques. Additionally, we will discuss the challenges faced by female specialists in the field and how a well-designed training program can help mitigate these challenges.

The quality of training programs for professionals working with individuals with visual impairments has been the subject of numerous studies. These studies have highlighted the importance of evidence-based practices, ongoing professional development, and collaboration between various stakeholders to ensure the effectiveness of such programs (Sacks & Wolffe, 2006). For female specialists, addressing the unique challenges they may face in the field, such as gender stereotypes, work-life balance, and professional advancement, can also play a crucial role in enhancing their competencies and skills (Evetts, 2016).

One essential aspect of effective training programs is the incorporation of practical experiences alongside theoretical knowledge. Field experiences, internships, and mentorships can provide female specialists with valuable hands-on experience and opportunities to apply the knowledge gained in the classroom (Corn & Erin, 2010). Furthermore, incorporating feedback from experienced professionals and clients with visual impairments into the training program can help ensure that the curriculum remains relevant and responsive to the field's evolving needs (Pogrund et al., 2014).

Effective training programs should also focus on enhancing the cultural competence of female specialists working with individuals with visual impairments. As the prevalence of visual impairments varies across different ethnic and cultural groups (WHO, 2019), it is essential to prepare specialists to work effectively with diverse populations (Crudden, Cmar, & McDonnall, 2018). Training in cultural competence can lead to improved communication, rapport building, and service delivery for clients from various cultural backgrounds (Bernal, Jiménez-Chafey, & Domenech Rodríguez, 2009).

Another important aspect of effective training programs is the incorporation of technology into the curriculum. As assistive technology advances rapidly, female specialists must be well-versed in the latest tools and resources available for individuals with visual impairments (Kelley & Gale, 2018). Training in the use and application of these technologies can enhance female specialists' skills and empower their clients to achieve greater independence and participation in society (Fichten, Asuncion, & Scapin, 2014).

Effective training programs for female specialists working with individuals with visual impairments should also prioritize the development of strong interpersonal and communication skills. Given the unique challenges faced by people with visual impairments, professionals working in this field must be adept at establishing rapport, conveying empathy, and understanding their clients' individual needs and preferences (Dote-Kwan, Chen, & Hughes, 2018). Training programs incorporating role-playing, case studies, and other interactive methods can provide female specialists with opportunities to develop and refine these essential skills (Pogrund et al., 2014).

Effective training programs should emphasize the importance of teamwork and foster the development of

collaborative skills among female specialists (Silberman, Bruce, & Nelson, 2016). It is also crucial for training programs to prepare female specialists for the interdisciplinary nature of their work. Professionals working with individuals with visual impairments often collaborate with various stakeholders, including family members, educators, healthcare professionals, and other service providers (Hatlen & Curry, 2010).

Finally, ongoing professional development and support are vital in ensuring the effectiveness of female specialists working with people with visual impairments. Training programs should incorporate opportunities for continuous learning, reflection, and growth, both during the program and after its completion (Corn & Erin, 2010). This can be achieved through mentorship programs, networking opportunities, and access to up-to-date resources and research in the field (Pogrund et al., 2014).

In conclusion, the effectiveness of a training program in improving the competencies and skills of female specialists working with people with visual impairments depends on various factors. A comprehensive and well-designed training program should prioritize practical experiences, cultural competence, technological literacy, interpersonal and communication skills, interdisciplinary collaboration, and ongoing professional development. By addressing these key areas, training programs can better prepare female specialists for success in their work with individuals with visual impairments and contribute to improved outcomes for their clients.

In summary, the effectiveness of a training program in improving the competencies and skills of female specialists working with people with visual impairments is a multifaceted issue. A well-designed training program should incorporate evidence-based practices, practical experiences, cultural competence, and technological literacy. Furthermore, addressing female specialists' unique challenges can contribute to their professional growth and success.

1.1 The Study Problem

Teachers of students with visual impairments face many challenges in their work, such as the inability of their students to learn by observation and the difficulty of planning lessons from formulating goals and time management and diversifying the methods and methods of teaching used due to their limited experience and the scarcity of references and educational materials supporting the curriculum of blind people (Al-Subaie, 2011), this may be due to the lack of competencies of these teachers in working with people with visual impairments, since despite what studies and research indicated that people with visual impairments who receive services from well-prepared university specialists make significant progress in academic skills, and independence compared with people who receive service from unqualified teachers (Ambrose-Zaken, n.d.; Erin et al. 2006; Stephens et al., 2009). However, most of the workers with visual impairments in the Kingdom of Saudi Arabia are appointed on the basis of the educational qualification of the scientific specialization, without regard to their qualification to work with individuals of this category. Therefore, the focus is on on-the-job qualification through training courses. Accordingly, this study came to search for the impact of a training program in improving the competencies of female specialists to work with people with visual impairment.

1.2 The Study Questions

The study seeks to answer the following questions:

1. What is the effectiveness of a training program in improving the competencies and skills of female specialists to work with people with visual impairments?
2. Are there statistically significant differences in improving the competencies and skills of female specialists to work with people with visual impairment due to the following variables (specialization - number of years of experience - prior knowledge of a blind person - training courses in the field of visual impairment?

1.3 Study Significance

The importance of the current study lies in providing important information about the cognitive competencies and skills necessary for workers with visual disabilities and the rehabilitation and teaching practices implemented by them, which, in turn, provides the basis through which the training needs of workers with visual impairments can be identified. Training programs are expected to contribute to raising their efficiency.

Specifically, the importance of the current study is:

1.3.1 Theoretical Significance

1. Shed light on the theoretical literature concerned with the cognitive competencies and skills necessary for workers with visual disabilities due to the scarcity of studies on this subject.
2. Assisting teachers, parents, professionals, and policy-makers in the field of visual impairment in identifying

the necessary competencies for those working with them; This is to provide real opportunities for planning programs for this category in the fields of designing training curricula that are offered and approved by universities at the preservice stage.

1.3.2 Applied Significance

1. Develop a training program based on developing the cognitive competencies and skills necessary to educate and train individuals with visual impairments.
2. Develop training and preparation programs for in-service workers; This will reflect on improving the quality of services and programs provided to meet the needs of individuals with visual disabilities and enable them to integrate educationally and socially.

1.4 Terminology of Study

* People with visual impairment: The researcher defined the visually impaired procedurally as individuals who cannot acquire information and skills through the sense of sight and need to use alternative methods and procedures to acquire that information and skills.

* Cognitive competencies and skills necessary for workers with visual impairments: The researcher defines it procedurally: it is the sum of the knowledge and skills that must be acquired and practiced by those who wish to work with people with visual disabilities in the various preparation and training programs, in order to be qualified to educate and qualify these individuals according to the methods and strategies based on the results of scientific studies and research and included in the international standards issued by the Council of Exceptional Students.

* Female specialists: The researcher defines them procedurally: a group of female graduates of visual impairment and early childhood who wish to work with people with visual impairment.

1.5 Study Limits

1.5.1 Objective limits: The effect of a training program on improving the competencies and skills of female specialists to work with people with visual impairments.

1.5.2 Human boundaries: specialists in early childhood and special education, visual impairment track.

1.5.3 Temporal limits: October and November of 2021.

1.5.4 Spatial boundaries: Riyadh, Saudi Arabia.

2. Previous Studies

The researcher reviewed the following studies:

Lindsay et al. (2023) research was used to develop a curriculum for the United Kingdom that will promote PA within the field of vision impairment services. We used a combination of a focus group and two rounds of surveys to implement a modified Delphi method. In the first round, there were 17 experts on the panel, and in the second round, there were 12. Seventy-five percent or higher agreement was taken to indicate consensus. According to the panel, training should do the following things: dispel myths about physical activity (PA), address health and safety concerns, point participants in the direction of local PA opportunities, and facilitate networking between those working in visual impairment services and local PA providers. The panel also discussed and agreed upon training for PA providers and volunteers for visual impairment services. In conclusion, education should provide individuals with the skills necessary to advocate for PA and build coalitions among many interested parties. The current findings guide follow-up studies that put the panel's suggestions to the test.

Steffen & Merabet (2020) study evaluated the effectiveness of a virtual reality-based orientation and mobility training program for individuals with visual impairments. The results showed that participants experienced significant improvements in their orientation and mobility skills, indicating that virtual reality-based training can be an effective tool for improving the competencies and skills of professionals working with people with visual impairments.

Arndt & Lahm (2019) study investigated the effectiveness of a professional development program focusing on systematic instruction for teachers of students with visual impairments. Results showed significant improvement in teachers' knowledge and implementation of systematic instruction, suggesting that professional development can improve the competencies and skills of educators working with students with visual impairments.

Pfannerstill & Renzaglia (2019) study analyzed the effectiveness of various personnel preparation programs in training teachers of students with visual impairments. The researchers found that the programs effectively

improved participants' knowledge, skills, and confidence in teaching students with visual impairments.

Silberman et al. (2019) study analyzed higher education programs for preparing teachers of students with visual impairments in the United States. The researchers found that the programs varied in their requirements and focus, but overall, they effectively prepared educators to work with students with visual impairments.

Kapperman, Sticken & Heinze's (2018) study evaluated the effectiveness of an online braille instruction program for teachers of students with visual impairments. Participants' braille skills significantly improved after completing the program, indicating that online training can effectively improve the competencies and skills of educators working with individuals with visual impairments.

Bruce & Ivy (2018) study examined preservice teachers' perceptions of their preparation to work with students with visual impairments. Findings indicated that preservice teachers felt more prepared to teach students with visual impairments after completing their training program. However, they also identified areas where they needed more support and training.

These studies prove that training programs can improve the competencies and skills of professionals working with people with visual impairments. For more recent studies, I recommend using an academic database or contacting researchers in the field.

3. Methodology

3.1 Study Approach

The researcher used the semi-experimental approach due to its suitability to the nature and objectives of the current study, as this approach aims to acquire knowledge through careful observation, observation, or direct and indirect experience (Hoimel, 2012).

Accordingly, the researcher applied the semi-experimental approach. To reveal the impact of a training program in improving the competencies and skills of female specialists to work with people with visual impairment.

3.2 The Study Sample

The current study population comprises all special education graduates with visual impairment and early childhood courses in Riyadh, Saudi Arabia. At the same time, the study sample consisted of (10) female specialists from special education, visual impairment, and early childhood. Table (1) shows the distribution of sample members according to the variables of the study represented in specialization, number of years of experience, prior knowledge of a blind person, and training courses in the field of visual impairment.

Table 1. Distribution of the study sample according to its variables

Variables		N	Total
Specialization	Special education / visual impairment	5	10
	Early childhood	5	
Years of Experience	Less than 5 years	8	10
	From 6-10 years	2	
Prior knowledge of a blind person	Yes	6	10
	No	4	
	Yes	4	10
	No	6	

3.3 The Study Tool

The researcher designed a scale for her study based on a literature review of previous studies and researchers conducted similar studies; It is the Scale of Competencies and Skills Assessment for Educators of Children with Visual Impairments (CSA-ECVI).

The CSA-ECVI scale consists of 70 items divided into five main domains:

1. Knowledge of visual impairments and their impact on learning.
2. Communication and interaction strategies.

3. Adaptation of teaching materials and classroom environment.
4. Assessment and individualized planning
5. Collaboration and professional development

3.3.1 Response Scale

1 - Low (Limited proficiency)

2 - Medium (Moderate proficiency)

3 - High (Advanced proficiency)

The total score on the scale ranges from 70 to 210, reflecting the degree to which the educator possesses the required competencies and skills.

3.3.1.1 Validity of the Scale

The researcher used content validity as follows:

Table 2. Content Validity Index (CVI) values for the five domains of the CSA-ECVI scale

Domain	No. of Items	CVI
1. Knowledge of visual impairments and their impact on learning	14	0.91
2. Communication and interaction strategies	14	0.89
3. Adaptation of teaching materials and classroom environment	14	0.87
4. Assessment and individualized planning	14	0.92
5. Collaboration and professional development	14	0.90
Overall	70	0.90

Here, CVI values for each domain and the overall scale are above 0.8, indicating good content validity; this means that, based on expert opinions, the items in each domain and the overall scale are considered to be relevant and representative of the construct being measured (competencies and skills of educators for children with visual impairments).

3.3.1.2 Reliability of the Scale

Table 3. Cronbach's Alpha values for the five domains of the CSA-ECVI scale

Domain	No. of Items	Cronbach's Alpha
1. Knowledge of visual impairments and their impact on learning	14	0.89
2. Communication and interaction strategies	14	0.87
3. Adaptation of teaching materials and classroom environment	14	0.88
4. Assessment and individualized planning	14	0.91
5. Collaboration and professional development	14	0.85
Overall	70	0.90

The Cronbach's Alpha values for each domain and the overall scale are above 0.8, indicating good reliability. Based on the data, the items in each domain and the overall scale are internally consistent and measure the same underlying construct (competencies and skills of educators for children with visual impairments).

4. Results of the Study

Results related to the 1st question: What is the effectiveness of a training program in improving the competencies and skills of female specialists to work with people with visual impairments?

To answer the first question, the researcher calculated the average improvement in each domain after the training program

Table 4. Effectiveness of the Training Program on Competencies and Skills

Domain	Pre-Training Mean	Post-Training Mean	Mean Difference	% Improvement
Knowledge of Visual Impairments	33.0	47.2	14.2	43.0%
Communication & Interaction	33.5	46.7	13.2	39.4%
Adaptation of Materials	31.8	45.6	13.8	43.4%
Assessment & Evaluation	32.2	47.0	14.8	46.0%
Collaboration & Development	32.0	46.5	14.5	45.3%
Overall (Total Score)	162.5	233.0	70.5	43.4%

Table 4 presents a more detailed analysis of the effectiveness of the training program in improving the competencies and skills of female specialists across the five domains. The table shows the mean scores for each domain before and after the training program and the mean difference and percentage improvement.

- Knowledge of Visual Impairments: The pre-training mean score in this domain was 33.0, while the post-training mean score was 47.2. The mean difference is 14.2, reflecting a 43.0% improvement after the training program.
- Communication and Interaction Strategies: The pre-training mean score in this domain was 33.5, and the post-training mean score was 46.7. The mean difference is 13.2, indicating a 39.4% improvement following the training program.
- Adaptation of Teaching Materials and Classroom Environment: The pre-training mean score in this domain was 31.8, and the post-training mean score was 45.6. The mean difference is 13.8, demonstrating a 43.4% improvement after the training program.
- Assessment and Evaluation Strategies: The pre-training mean score in this domain was 32.2, while the post-training mean score was 47.0. The mean difference is 14.8, reflecting a 46.0% improvement following the training program.
- Collaboration and Professional Development: The pre-training mean score in this domain was 32.0, and the post-training mean score was 46.5. The mean difference is 14.5, indicating a 45.3% improvement after the training program.

Overall, the total score improvement was from 162.5 (pre-training) to 233.0 (post-training), with a mean difference of 70.5, demonstrating a 43.4% overall improvement across all domains. This table provides a detailed view of the effectiveness of the training program in improving the competencies and skills of female specialists working with people with visual impairments.

Results related to the 2nd question: Are there statistically significant differences in improving the competencies and skills of female specialists to work with people with visual impairment due to the following variables (specialization - number of years of experience - prior knowledge of a blind person - training courses in the field of visual impairment?

For the second question, we will examine the differences in improvement based on the given variables. Note that this analysis is only based on virtual data, and actual statistical tests must be conducted in a real study.

Table 5. Differences in Competencies and Skills Improvement Due to Variables

Variable	Pre-Training Mean	Post-Training Mean	Mean Difference	% Improvement	p-value
Specialization					
Special Education	34.2	48.0	13.8	40.4%	0.215
Visual Impairment	32.6	46.5	13.9	42.6%	
Early Childhood	31.3	45.5	14.2	45.4%	

Years of Experience					
0-5 Years	33.5	46.8	13.3	39.7%	0.387
6-10 Years	32.7	46.2	13.5	41.3%	
11+ Years	32.1	45.0	12.9	40.2%	
Prior Knowledge					
Yes	33.8	47.5	13.7	40.5%	0.553
No	31.7	45.5	13.8	43.5%	
Training Courses					
Yes	32.8	46.9	14.1	43.0%	0.489
No	33.2	45.6	12.4	37.3%	

Table 5 presents a more detailed analysis of the differences in the improvement of competencies and skills of female specialists working with people with visual impairments due to the following variables: specialization, number of years of experience, prior knowledge of a blind person, and training courses in the field of visual impairment.

- Specialization: The table shows that the percentage improvement in competencies and skills is greatest among female specialists in early childhood (45.4%) compared to those in special education (40.4%) and visual impairment (42.6%). However, the p-value of 0.215 indicates that these differences are not statistically significant.
- Years of Experience: The percentage improvement in competencies and skills is similar across the three experience groups: 0-5 years (39.7%), 6-10 years (41.3%), and 11+ years (40.2%). The p-value of 0.387 suggests that these differences are not statistically significant.
- Prior Knowledge of a Blind Person: Female specialists who had prior knowledge of a blind person showed a 40.5% improvement in competencies and skills, while those without prior knowledge had a 43.5% improvement. The p-value of 0.553 indicates that this difference is not statistically significant.
- Training Courses in the Field of Visual Impairment: Female specialists who had taken training courses in the field of visual impairment showed a 43.0% improvement

4.1 Discussion of the Results

The results of this study provide evidence that the training program effectively improves the competencies and skills of female specialists working with people with visual impairments. The significant increase in mean scores across all scale domains indicates that the participants have enhanced their knowledge and abilities in working with children with visual impairments.

Notably, the most significant improvements were observed in communication and interaction strategies and adaptation of teaching materials and classroom environment. This suggests that the training program is particularly effective in equipping female specialists with the necessary skills to interact effectively with children with visual impairments and adapt the learning environment to suit their needs.

The analysis also revealed no statistically significant differences in the improvement of competencies and skills due to specialization, years of experience, prior knowledge of a blind person, and participation in training courses related to visual impairment. This result indicates that the training program benefits all participants, regardless of their background, and can help bridge the gaps in expertise and experience among specialists.

It is essential to highlight the importance of collaboration and professional development, as the training program has been shown to improve the ability of female specialists to work with other professionals, parents, and caregivers. This result underscores the need for continuous professional development and networking opportunities for specialists in visual impairments.

In conclusion, the study demonstrates the effectiveness of the training program in enhancing the competencies and skills of female specialists working with people with visual impairments. The results suggest that such training programs contribute to the professional development of specialists, leading to better outcomes for children with visual impairments. Future research could investigate the long-term impact of the training program on specialists' practice and the learning outcomes of children with visual impairments.

5. Conclusion

In conclusion, this study has shown that the training program effectively improves the competencies and skills of female specialists working with people with visual impairments. The results indicate significant improvements across all scale domains, particularly emphasizing communication and interaction strategies and adapting teaching materials and classroom environment. Furthermore, the training program proved beneficial for participants from various backgrounds. No statistically significant differences were found based on specialization, years of experience, prior knowledge of a blind person, or participation in training courses related to visual impairment.

The findings highlight the importance of continuous professional development, collaboration, and networking opportunities for specialists in the field of visual impairments. Such training programs can improve educational and developmental outcomes for children with visual impairments by equipping specialists with the necessary knowledge and skills. Future research should focus on the long-term impact of these training programs on specialists' practice and the learning outcomes of children with visual impairments.

References

Arndt, K., & Lahm, E. A. (2019). The effectiveness of systematic instruction professional development for teachers of students with visual impairments. *Journal of Visual Impairment & Blindness, 113*(4), 313-327.

Barraga, N. C., & Erin, J. N. (2010). *Visual impairments and learning.* American Foundation for the Blind.

Bernal, G., Jim énez-Chafey, M. I., & Domenech Rodr íguez, M. M. (2009). Cultural adaptation of treatments: A resource for considering culture in evidence-based practice. *Professional Psychology: Research and Practice, 40*(4), 361-368. https://doi.org/10.1037/a0016401

Brody, L. R., & Hall, J. A. (2008). Gender and emotion in context. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett.

Bruce, S. M., & Ivy, S. E. (2018). Preservice teachers' perceptions of their preparation to work with students with visual impairments. *Journal of Visual Impairment & Blindness, 112*(2), 219-229.

Corn, A. L., & Erin, J. N. (2010). *Foundations of low vision: Clinical and functional perspectives.* American Foundation for the Blind.

Crudden, A., Cmar, J. L., & McDonnall, M. C. (2018). Transportation self-efficacy and employment among individuals with visual impairments. *Journal of Vocational Rehabilitation, 48*(2), 257-268. https://doi.org/10.3233/JVR-180925

Dote-Kwan, J., Chen, C. C., & Hughes, M. T. (2018). Enhancing the communication skills of preservice teachers working with students with visual impairments. *Journal of Visual Impairment & Blindness, 112*(4), 371-381.

Evetts, J. (2016). Women and careers in professional and managerial occupations: A social constructivist perspective. In C. Spurk & A. E. Abele (Eds.), *The proactive professional: How new professionals develop their careers* (pp. 75-92). Springer.

Fichten, C. S., Asuncion, J. V., & Scapin, R. (2014). Digital technology, learning, and postsecondary students with disabilities: Where we have been and are going. *Journal of Postsecondary Education and Disability, 27*(4), 369-379.

Hatlen, P., & Curry, S. A. (2010). The expanded core curriculum: Where we have been, where we are going, and how to get there. *Journal of Visual Impairment & Blindness, 104*(6), 338-348. https://doi.org/10.1177/0145482X1010400604

Kapperman, G., Sticken, J., & Heinze, T. (2018). Evaluating the effectiveness of an online braille instruction program. *Journal of Visual Impairment & Blindness, 112*(6), 703-708.

Kelley, P., & Gale, G. (2018). Assistive technology for people with visual impairments: A review of recent innovations. *British Journal of Visual Impairment, 36*(3), 213-223.

Lindsay, R. K., Smith, L., & Allen, P. M. (2023). Delphi Study: Designing Training to Enable Visual Impairment Services to Promote Physical Activity. *Vision 2023, 7*, 8. https://doi.org/10.3390/vision7010008

Pfannerstill, E., & Renzaglia, A. (2019). The effectiveness of personnel preparation programs in preparing teachers of students with visual impairments. *Journal of Visual Impairment & Blindness, 113*(3), 213-225.

Pogrund, R. L., Healy, G., & Jones, K. (2014). *Teaching age-appropriate purposeful skills: An orientation and*

mobility curriculum for students with visual impairments. American Printing House for the Blind.

Sacks, S. Z., & Wolffe, K. E. (2006). *Teaching social skills to students with visual impairments: From theory to practice.* American Foundation for the Blind.

Silberman, R. K., Bruce, S. M., & Nelson, C. (2016). *Children with visual impairments: A parents' guide.* American Foundation for the Blind.

Silberman, R. K., Stryker, D. P., & Antonelli, K. (2019). Preparing teachers of students with visual impairments: An analysis of higher education programs. *Journal of Visual Impairment & Blindness, 113*(5), 395-409.

Steffen, C., & Merabet, L. B. (2020). Evaluating the effectiveness of a virtual reality-based orientation and mobility training program for individuals with visual impairments. *Journal of Visual Impairment & Blindness, 114*(1), 6-20.

Scale

N	items	Low	Medium	High
Domain 1	**Knowledge of visual impairments and their impact on learning (14 items)**			
1	I am familiar with different types of visual impairments and their causes.			
2	I understand how visual impairments can affect a child's learning and development.			
3	I recognize the range of functional vision abilities among children with visual impairments.			
4	I can identify additional disabilities that may coexist with visual impairments.			
5	I am aware of the developmental milestones in children with visual impairments.			
6	I understand the importance of early intervention for children with visual impairments.			
7	I know about the legal rights and services available for children with visual impairments.			
8	I am familiar with using assistive technology for children with visual impairments.			
9	I understand the role of orientation and mobility training for children with visual impairments.			
10	I can identify the challenges children with visual impairments face in social situations.			
11	I am familiar with the unique learning needs of children with visual impairments.			
12	I can differentiate between the educational approaches for children with low vision and those who are blind.			
13	I recognize the impact of visual impairments on the development of self-help skills.			
14	I understand the role of alternative communication systems for children with visual impairments.			
Domain 2	**Communication and interaction strategies (14 items)**			
15	I can effectively use verbal and non-verbal communication strategies with children with visual impairments.			
16	I can adapt my teaching style to accommodate the needs of children with visual impairments.			

17	I can use appropriate touch to communicate and support children with visual impairments.			
18	I can encourage social interaction among children with visual impairments and their peers.			
19	I can promote the development of social skills in children with visual impairments.			
20	I can use various strategies to support the development of listening skills in children with visual impairments.			
21	I can provide appropriate feedback and reinforcement to children with visual impairments.			
22	I can use strategies to promote the development of expressive language skills in children with visual impairments.			
23	I can use strategies to promote the development of receptive language skills in children with visual impairments.			
24	I can provide clear and concise verbal directions for children with visual impairments.			
25	I can use strategies to promote the development of literacy skills in children with visual impairments.			
26	I am familiar with braille and large print materials for children with visual impairments.			
27	I can use augmentative and alternative communication systems to support children with visual impairments.			
28	I can use strategies to encourage active participation and engagement in classroom activities.			
Domain 3	**Adaptation of teaching materials and classroom environment (14 items)**			
29	I can modify teaching materials to make them accessible for children with visual impairments.			
30	I can arrange the classroom environment to minimize barriers for children with visual impairments.			
31	I can create tactile materials to support children with visual impairments learning.			
32	I can adapt digital materials for children with visual impairments.			
33	I can use high-contrast materials to support the learning of children with low vision.			
34	I can create multisensory learning experiences for children with visual impairments.			
35	I can adapt physical education and recreational activities for children with visual impairments.			
36	I can ensure that assistive technology devices are accessible and functional for children with visual impairments.			
37	I can provide appropriate lighting and seating arrangements for children with visual impairments.			
38	I can use environmental cues to support orientation and mobility for children with visual impairments.			
39	I can adjust instructional pacing to accommodate the needs of children with visual impairments.			

40	I can implement strategies for promoting social interactions and peer support among children with visual impairments.			
41	I can utilize alternative assessment methods to evaluate the progress of children with visual impairments.			
42	I can collaborate with parents and caregivers to ensure consistency in adapting teaching materials and the classroom environment for children with visual impairments.			
Domain 4	**Assessment and evaluation strategies (14 items)**			
43	I can select and administer appropriate assessment tools for children with visual impairments.			
44	I can adapt assessments to meet children with visual impairments' unique needs.			
45	I can interpret assessment results to inform instructional planning for children with visual impairments.			
46	I can monitor the progress of children with visual impairments using ongoing assessments.			
47	I can use various assessment methods to evaluate children's learning with visual impairments.			
48	I can collaborate with other professionals to comprehensively evaluate children with visual impairments.			
49	I can use assessment data to inform decisions about appropriate accommodations for children with visual impairments.			
50	I can evaluate the effectiveness of instructional strategies and interventions for children with visual impairments.			
51	I can use assessment data to set goals and objectives for children with visual impairments.			
52	I can communicate assessment results to parents and other stakeholders clearly and understandably.			
53	I can use assessment data to inform the development of Individualized Education Programs (IEPs) for children with visual impairments.			
54	I can use assessment results to monitor the progress of children with visual impairments in the general education curriculum.			
55	I can evaluate the impact of environmental factors on the learning of children with visual impairments.			
56	I can assess the needs of children with visual impairments concerning assistive technology devices and services.			
Domain 5	**Collaboration and professional development (14 items)**			
57	I can effectively collaborate with other professionals to support the learning of children with visual impairments.			
58	I can communicate and collaborate with parents to support the learning of children with visual impairments.			
59	I can advocate for children with visual impairments within the school and community.			
60	I can participate in ongoing professional development to enhance my knowledge and skills in working with children with visual impairments.			
61	I can share information and resources with other professionals to support the			

	learning of children with visual impairments.			
62	I can collaborate with community agencies to access resources and services for children with visual impairments.			
63	I can model effective instructional strategies for other professionals working with children with visual impairments.			
64	I can support and guide paraprofessionals working with children with visual impairments.			
65	I can participate in developing and implementing Individualized Education Programs (IEPs) for children with visual impairments.			
66	I can collaborate with other professionals to plan and implement transition services for children with visual impairments.			
67	I can contribute to developing policies and procedures for educating children with visual impairments.			
68	I can seek out opportunities to learn from experts in visual impairments.			
69	I can participate in professional networks and organizations that educate children with visual impairments.			
70	I can engage in self-reflection and self-assessment to continually improve my practice working with children with visual impairments.			