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The Educational Journey of Students With Disabilities in Saudi Arabia: From Isolation to Inclusive Education

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Abstract

In recent years, the Kingdom of Saudi Arabia has put considerable effort toward improving justice and equity for people with disabilities in education. One of the three main dimensions of Saudi Arabia's Vision 2030 program is to support all citizens, especially those with disabilities. However, more efforts are still needed to achieve meaningful inclusive education. This analysis sheds light on the challenges, successes, and important factors that have affected the educational landscape for individuals with disabilities in Saudi Arabia and offers recommendations for improving and sustaining inclusive educational practice. In particular, technology solutions need to be implemented to provide effective training for special education professionals, and the current curriculum should be reevaluated to suit special education standards. Preparing special education teachers and other personnel to adapt the curriculum to suit students with disabilities is an important step toward full inclusion in Saudi Arabia.

Keywords

Saudi Arabian Vision 2030, special education teachers, assistive technology

When the Kingdom of Saudi Arabia (KSA) was established around 90 years ago, only wealthy individuals and their families had access to education (Alasim, 2020). One key step taken by the KSA to democratize education was the implementation of the General Education Law in 2005, which made education compulsory for all children ages 6 to 15. This law underscored the government's commitment to universal education access, and helped significantly increase school enrollment rates across the country. The main reason for this effort was to ensure that the education system did not discriminate against anyone because of their physical or learning disabilities. With few exceptions, and until relatively recently, students with disabilities have been systematically excluded from public education in most countries worldwide (Dudley-Marling & Burns, 2014). However, the importance of inclusive education was recently highlighted by United Nations (UN) guidelines on the Convention on the Rights of Persons with Disabilities "Inclusive education is important not only for persons with disabilities but the societies they live in, as it helps combat discrimination and promote diversity and participation" (Office of the High Commissioner for Human Rights, 2016, para. 4).

In recent years, following its Vision 2030 program, the KSA has undertaken significant efforts to promote more inclusive education. The KSA is rapidly adopting inclusive practices from other nations to support students with disabilities and has passed numerous laws promoting inclusivity, especially in education (Aldousari & Dunn, 2022). Despite these advancements, the KSA continues to grapple with various challenges in fully achieving its inclusive education objectives, which is also the case in many other countries.

This paper explores and maps the educational experiences of Saudi Arabian students with disabilities, documenting the historical shift from a closed period in which there were few options to the present, where inclusive educational practices are the goal. The analysis sheds light on the challenges, successes, and important factors that have influenced the educational landscape for individuals with disabilities in the KSA. It also seeks to offer viewpoints and recommendations for improving and sustaining inclusive educational policies and practices for the country's students with disabilities.

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A History of Special Education in the KSA

Special education in Saudi Arabia has undergone significant transformations over the past decades, evolving from a system of isolation and segregation to one that emphasizes inclusive education and equal opportunities for all students (Aldabas, 2015). This shift has been driven by a growing recognition of the importance of education for individuals with disabilities and the need to provide appropriate support and resources (Al-Abbasi & Al-Jaber, 2015).

Historically, children with disabilities were often excluded from mainstream schools and placed in specialized institutions, where they received little to no education. These institutions were often under-resourced and provided substandard education, with a focus on manual training rather than academic learning.

In 1958, the Saudi Ministry of Education began providing services for blind adult students, offered in "scientific institutes" (Salloom, 1995). The students also received financial support and medical services and were taught how to use Braille (Alruwaili, 2016). Also in 1958, after visiting one of these institutes, King Saud bin Abdulaziz Al Saud donated a new permanent headquarters, located in Riyadh. The king's visit was a catalyst for the allocation of more resources and led to further development of special education in the KSA.

Several years later, in 1962, the Department of Special Learning was created to oversee rehabilitation and education for children with intellectual disability and visual and hearing impairments (Battal, 2016). In 1964, the cities of Aneaza, Mecca, and Alhofouf established schools for students with visual impairments (Al-Mousa, 1999). Students with intellectual disability and hearing disabilities began receiving access to schools in 1972 (Alquraini, 2011). In that year, the Intellectual Education Institute began teaching communication, social behavior, and life skills to students with intellectual disability.

Through the 1970s and 1980s, the Saudi government implemented further reforms in special education. This marked the beginning of a shift toward inclusive education, with the goal of integrating students with disabilities into mainstream schools (Al-Shammari & Al-Jaber, 2017). Another significant milestone for disability rights in KSA was in 1987 when the Legislation of Disability was passed (Alquraini, 2011). In addition to guaranteeing many basic rights for people with disabilities, the legislation provided disability definitions and described assessment and diagnostic procedures to determine eligibility for special education services (Alquraini, 2011).

However, progress was slow, and many challenges remained. In the 1990s, the UN issued a report that highlighted the inadequacy of special education services in Saudi Arabia, noting that many students with disabilities were still excluded from schools and that there was a lack of trained teachers and resources. In 1996, the General Secretariat for Special Education was established within the Ministry of Education as the KSA government agency responsible for people with disabilities and their affairs. In the same year, the Ministry of Education also recognized students with learning disabilities as a population eligible for special education services (AlMedlij & Rubinstein-Ávila, 2018).

In the 21st century, the Saudi government has continued to work toward improving special education services, with a focus on inclusive education and equal opportunities for all students. In 2000, the Disability Code was passed to ensure people with disabilities could access basic services including a free education. The law required public agencies to aid eligible persons through health, rehabilitation, and education (Alquraini, 2011).

The Regulations of Special Education Programs and Institutes (RSEPI), introduced in 2001, were modeled after similar U.S. legislation and are considered a "bill of rights" for learners with disabilities (Aldabas, 2020). RSEPI defines significant clusters of students with disabilities and the duties and responsibilities of teachers and other professionals working with these learners. It outlines students' rights to special education services, including the right to an individualized education program (IEP) for each student with a disability, developed with parents and implemented by school personnel (Alquraini, 2011).

In 2004, the Ministry of Education issued a policy that emphasized and provided guidelines for integrating students with disabilities into mainstream classrooms. This policy was reinforced by the 2014 Education Law, which mandated the inclusion of students (boys and girls) with disabilities in all schools.

Today, special education in Saudi Arabia is still a work in progress, but significant progress has been made. As part of the Vision 2030 program, which is intended to move the KSA away from dependence on the oil industry, the country has stepped up efforts to support the education sector. Certain goals in the Vision 2030 framework are devoted to improving special education, with the goal of guaranteeing that every student receives a full education regardless of physical or mental health. The government is prioritizing teacher recruitment and training, as the shortage of trained special education teachers poses a significant challenge (Alqahtani et al., 2021). The project also intends to redesign curriculum and teaching approaches, moving away from earlier methods that isolated children with severe disabilities from the general public (Alqahtani et al., 2021). There is a growing awareness of the importance of inclusive education and the need to provide appropriate support and resources for students with disabilities (Al-Zahrani & Al-Jaber, 2019).

Inclusive Education in the KSA Today

Definition of Inclusive Education

The UN Convention on the Rights of Persons with Disabilities emphasizes that nations have a duty to provide policies that support inclusive learning environments and people with disabilities have a right to inclusive education (United Nations Department of Economic and Social Affairs, 2006). In addition, the UN's Sustainable Development Goal 4 emphasizes the importance of creating learning settings that include and meet the varied needs of all students. Although the UN does not offer a single and all-encompassing definition of inclusion, its numerous programs and frameworks highlight dedication to creating a more just and accessible learning environment for everyone (Alyami et al., 2022).

In the Saudi Arabian educational context, inclusion is defined as actively and deliberately integrating students with disabilities into regular classroom settings, creating a welcoming and accessible learning environment that meets the various needs of all students. A strong emphasis is placed on giving students with disabilities the tools, resources, and specialized support services they need to succeed academically and participate meaningfully in society. The Kingdom's approach to inclusive education is based on encouraging an environment of equity, respect, and acceptance where all students are valued members of the learning community, regardless of their skill level (Alsamiri et al., 2022), and this definition is aligned with the UN definition.

Challenges to Inclusive Education

Social and cultural values and differences influence how educational inclusion occurs and whether it is accepted. For example, inclusion is especially challenging in the KSA because of many families' physical distance from schools. Saudi Arabia encompasses more than two million square kilometers, with population settlements scattered across remote and difficult-to-reach areas presenting challenges in delivering health, rehabilitation, and educational care services due to their isolated and hard-to-access nature. Alothman et al. (2024) found that remote mothers of children with disabilities reported more educational challenges than mothers in cities, such as lacking assistive technology and applying an educational plan at home. Moreover, in Saudi society, people with disabilities are stigmatized and suffer from social marginalization. Parents experience shame and try to hide their children with disabilities (Alenazi et al., 2020). Disability is too often individualized and medicalized, which promotes inequality and exclusion of people with disabilities (Aldakhil, 2019).

While some educators and administrators are setting the standard for inclusive education, many others are still apprehensive or ignorant about the means and benefits of integrating students with disabilities into regular classroom settings (Alsulami, 2018). Similarly, parents continue to have nuanced viewpoints on the education of their children with disabilities. Some parents fear that due to cultural preconceptions or ignorance, their child with a disability will not receive an education on par with their peers. Other parents advocate for individualized education tailored to each child's needs.

Research indicates that prejudice against students with impairments does persist (Hayes & Bulat, 2017). These prejudiced viewpoints substantially impede the KSA's efforts to realize its goal of an inclusive and egalitarian educational system. It is crucial to address deeply rooted biases within the educational ecosystem to guarantee that inclusive education policies are implemented properly and to create an environment where all children have equitable opportunities.

Table 1. Estimates of Students With Various Types of Disabilities in Saudi Arabia.

Type of disability	%	Estimated number
Specific learning disabilities	5.0	250,000
Visual impairment	0.1	5,000
Hearing impairment	0.2	10,000
Intellectual disability	1.0	50,000
Speech or language impairments	2.9	145,000
Autism	0.7	35,000
Emotional disturbance	0.9	45,000
Orthopedic impairment	0.1	5,000
Other health impairment	1.3	65,000
Traumatic brain injury	0.1	5,000
Developmental delay	0.7	35,000
Multiple disabilities	0.3	15,000
All disabilities	13.2	665,000

Current Efforts and Initiatives

Table 1 shows the estimated numbers of students with disabilities in Saudi Arabia, broken down by disability category. Table 2 lists the various types of special education programs the KSA offers to children. According to the most recent information released by the Saudi Ministry of Education in September 2023, roughly 10% of Saudi Arabia's total population of children with disabilities were involved in inclusive settings. This means that 114,500 children with disabilities—56,500 boys and 58,000 girls—are actively engaged in inclusive education initiatives throughout the Kingdom. Of these, 50,000 children have intellectual disability, 20,000 have hearing impairments, 15,000 have visual impairments, 15,000 have mobility impairments, and 10,500 have various disabilities (Ministry of Education of Saudi Arabia, 2023). These figures demonstrate the Ministry of Education's ongoing efforts to support

Table 2. Distribution of Institutes, Programs, and Students in 2019 to 2020.

Disability	No. of institutes and programs	No. of students
Hearing impairment	586	6,881
Visual impairment	363	3,214
Physical and health disabilities	90	4,530
Intellectual disability	1,101	20,576
Autism	220	1,464
Learning disabilities	2,393	26,225
Multiple disabilities	58	490
Hyperactivity	30	81
Grand total	4,796	63,461

Note. Adapted from Ministry of Education, A Statistical Brief of Special Education Programs and Institutes for the Academic Year 2019/2020, General Administration of Special Education.

inclusive education and guarantee that students with a range of learning challenges are enrolled in regular classrooms.

Below, we summarize several important initiatives that have been put in place to support inclusive schools, make assistive technologies available, and offer financial assistance to families to create a learning environment that meets the needs of all students and aligns with the larger educational goals outlined in Saudi Vision 2030 (Aldabas, 2015).

Comprehensive access. The King Salman Center for Disability Research's Comprehensive Access Project (CAP) works to provide safe access to transportation and the built environment for the 10% of the Saudi population that is elderly and disabled (Saudi Gazette, 2018). As part of CAP, the King Salman Center prepared four sets of comprehensive accessibility guidelines for the urban environment, transportation, and public places, to be used by planners, architects, engineers, and others involved in building projects. One of these is a guide to comprehensive access standards for government facilities, including schools (Ministry of Human Resources and Social Development, n.d.).

Adapting the curriculum via IEPs. The Saudi school system has a broad curriculum covering a wide range of disciplines and age groups, which can be challenging for students with disabilities to navigate. This is particularly valid for writing and reading. To ensure equitable access, the curriculum must be modified to accommodate diverse learning requirements and provide the necessary supports.

One way to use differentiated teaching approaches to modify and change the curriculum is through IEPs, which are designed to explicitly address the learning requirements of students with disabilities. Teachers identify each student's needs and strengths in the IEP, allowing them to develop specialized instructional delivery strategies matched to the student's unique learning profile. Tailored educational initiatives yield greater advantages than disadvantages (Alhumaid et al., 2020). The integration of specialized instructional strategies into the special education curriculum is crucial to fostering an inclusive learning environment that supports the academic and personal development of students with diverse learning needs, given the wide range of disabilities and their varying degrees of severity. As an example, more than 20 books have been launched for primary, intermediate and rehabilitation school stages in the education of students with intellectual disability. Besides, special education plans have been prepared for these students in cooperation with the Curriculum Development Center

Assistive and educational technology. Russell et al. (2003) recommended technology as a tool to improve learning. Technological accessibility plays a significant role in achieving universal access for students with disabilities. Technologies such as screen reading and speech recognition software, alternative input devices, and captioning tools can help students with visual impairments, hearing impairments, or other disabilities access digital content and participate in online learning platforms. It is essential to ensure that educational technology is designed with accessibility features in mind so that all students can benefit from its use (Department of Special Education, 2023b).

The Saudi Ministry of Education supports students with disabilities by providing assistive technology including software that reads text aloud, speech-to-text software, and other devices that help students access information and communicate with their peers. According to the Department of Special Education (2023a), sign language is used in the family education curriculum and life skills for all educational levels, and course materials are printed in Braille for students with visual impairments.

Technology is also being used to provide distance learning for students with disabilities. Madrasati, an e-learning platform, is available to all special education teachers and students in the KSA; it can be used to teach group and individual classes. Saudi Arabia's free Ain educational TV channels also air recorded lessons by special education teachers aimed at the families of students with disabilities.

Educational vouchers project. The Ministry of Education provides a voucher system for students with disabilities to study in private special education institutions according to specific conditions and standards, with the aim of providing high-quality services (Tatweer Education Holding, 2023). The number of beneficiaries reached 15,282 students with disabilities.

The educational vouchers project aims to provide appropriate and equal educational services for all special education students in accordance with the best educational standards. The project also aims to rationalize government

spending while supporting the expansion of private and nonprofit education in the KSA to build a globally competitive knowledge society, in addition to achieving a fair distribution of the space currently available in private and international schools for special education. The project targets several categories of special education students (see, e.g., Table 1).

Policy and Practice Recommendations

Involving Parents of Students With Disabilities

Parents must be involved and supportive for students with disabilities to successfully integrate into general classrooms. First, it is imperative to provide parents with accurate and comprehensive information regarding the spectrum of disabilities. Education programs can be developed to assist parents in becoming more aware and knowledgeable of the particular challenges their children face. To give parents the knowledge and abilities to properly support their children's educational journeys, these programs must include instructional sessions, workshops, and seminars led by licensed specialists. In addition, this would help inform parents that their children are entitled to equal educational opportunities. Many parents have stated that they choose not to send their children with disabilities to school due to cultural norms and stigma, and could benefit from learning how important it is to educate their children.

The Saudi Ministry of Education should also make sure that parents are aware of their responsibilities when it comes to implementing inclusive education. Parents should not rely on special education instructors and other providers to fill this role. Rather, they should learn about their children's needs and share them with the teachers (Alghamdi & Holland, 2020).

Resch et al. (2010) pointed out that it is valuable to engage parents in improving and modeling learning for their children with disabilities. Parents can also help facilitate the acceptance of children with disabilities in society by supporting interaction between children with and without disabilities (Worcester et al., 2008). Smith (2006) noted that the combination of peer interactions and parental advocacy improves inclusive learning in schools for children with disabilities. By becoming involved in their children's educational development and ensuring that their needs are met within the school system, parents can become stronger advocates for their children (Alhumaid et al., 2022). Will (1986) suggested that "an appropriate mechanism for assuring the parental involvement would be parent advisory boards to assist schools in determining ways to more effectively involve parents in their children's education" (p. 414).

Creating an atmosphere of acceptance and understanding is also essential to help parents of students with disabilities succeed in their children's education. Fostering open dialogue and providing a platform for parents to talk about their experiences can help create a supportive network where parents can share perceptive remarks, voice concerns, and seek guidance. Parent support groups and community forums can be useful instruments in fostering relationships among families facing similar problems. These platforms can also help parents become more effective advocates for their children's educational needs and rights by enabling them to teach and learn from one another about best practices and coping and parenting techniques (Alsamiri et al., 2022).

Teacher Preparation

Preservice teacher training. No effective teacher preparation programs with a special education concentration existed in the KSA before 2015. Saudi Arabia lacks sufficient numbers of trained teachers to engage with students who have disabilities. Furthermore, a number of educators express fear of working with students with disabilities due to their potentially unpredictable behavior (Battal, 2016). This is a significant barrier to inclusive education. Hence, teacher preparation programs should require courses on topics such as the foundations of special education, inclusive education, and the diverse needs of students with disabilities. If preservice general education teachers have more knowledge about special education, they will be more able to effectively include students with disabilities in their classrooms.

In addition, special education preparation programs should teach evidence-based practices. Preservice teachers should be aware of effective and functional interventions to become qualified special education teachers. Moreover, student teaching and field experiences should require teacher candidates to spend significant time in inclusive classrooms. The Ministry of Education should develop a set of hiring qualifications for teachers that can be disseminated to teacher preparation programs in Saudi Arabian universities. The Ministry should also encourage current educators to take special education courses in order to advance in their careers (Peterson, 2021).

Teachers' professional development. Professional development for teachers in general education settings should help them to better meet the needs of students with disabilities. Preparing teachers to oversee inclusive classrooms requires understanding the nature of disabilities that students may present within a given learning environment. To move toward full inclusion for students with disabilities in Saudi Arabia, schools should offer professional development programs focusing on inclusive education to all in-service teachers. These programs should teach effective instructional interventions and evidence-based practices that improve teaching skills, including ways to deal with behavior problems. The programs could also emphasize

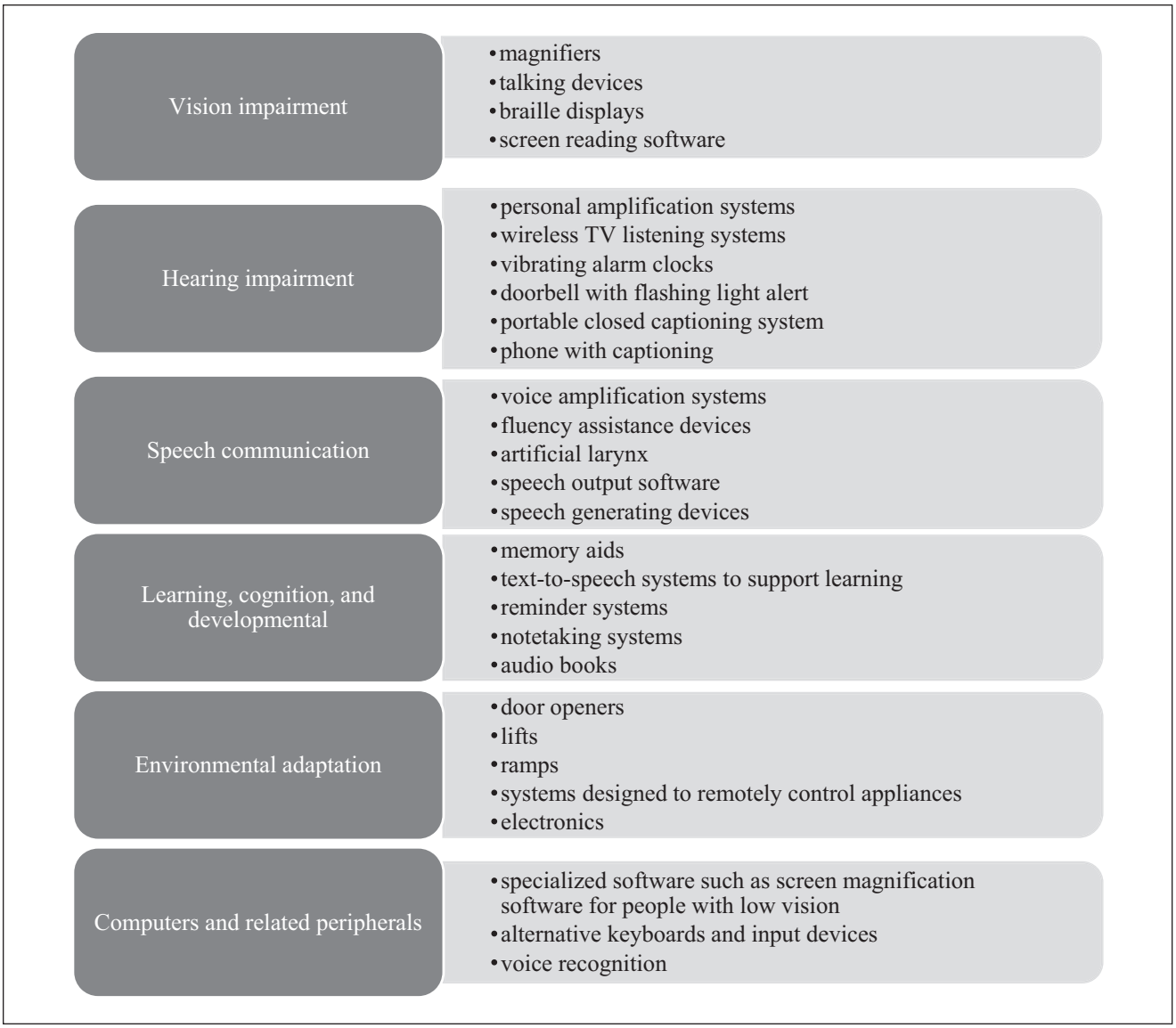

Figure 1. Technology Resources for Various Categories of Disabilities.

collaboration and teamwork between special and general education teachers (Aldabas, 2015).

Improving Technology and Infrastructure

Despite the KSA's efforts to supply schools with technological aids that contribute to educational integration, there are still challenges in this area. One of the main challenges for Saudi Arabian special education classrooms is a lack of assistive technologies. KSA should allocate more resources for acquiring technology that special education teachers can use (Alqahtani et al., 2021). Advanced equipment needs to be available in the classroom and Saudi special educators need to be trained to use it. If the system could integrate more assistive technologies (Figure 1), the KSA would be one step closer to realizing its 2030 special education vision (Figure 2).

Saudi Arabia has the potential to establish an inclusive and empowering educational environment by putting in place a comprehensive infrastructure that enables students with disabilities to enhance their knowledge and skills both at school and at home. The type of infrastructure needed includes safe access to all types of assistive technology as well as accessible content. To guarantee the smooth operation of assistive technology equipment, the infrastructure should also include the provision of specialized support services, such as technical assistance and maintenance (Alhumaid et al., 2020).

Maintenance and customization of assistive and educational technology are both crucial, as learning is more

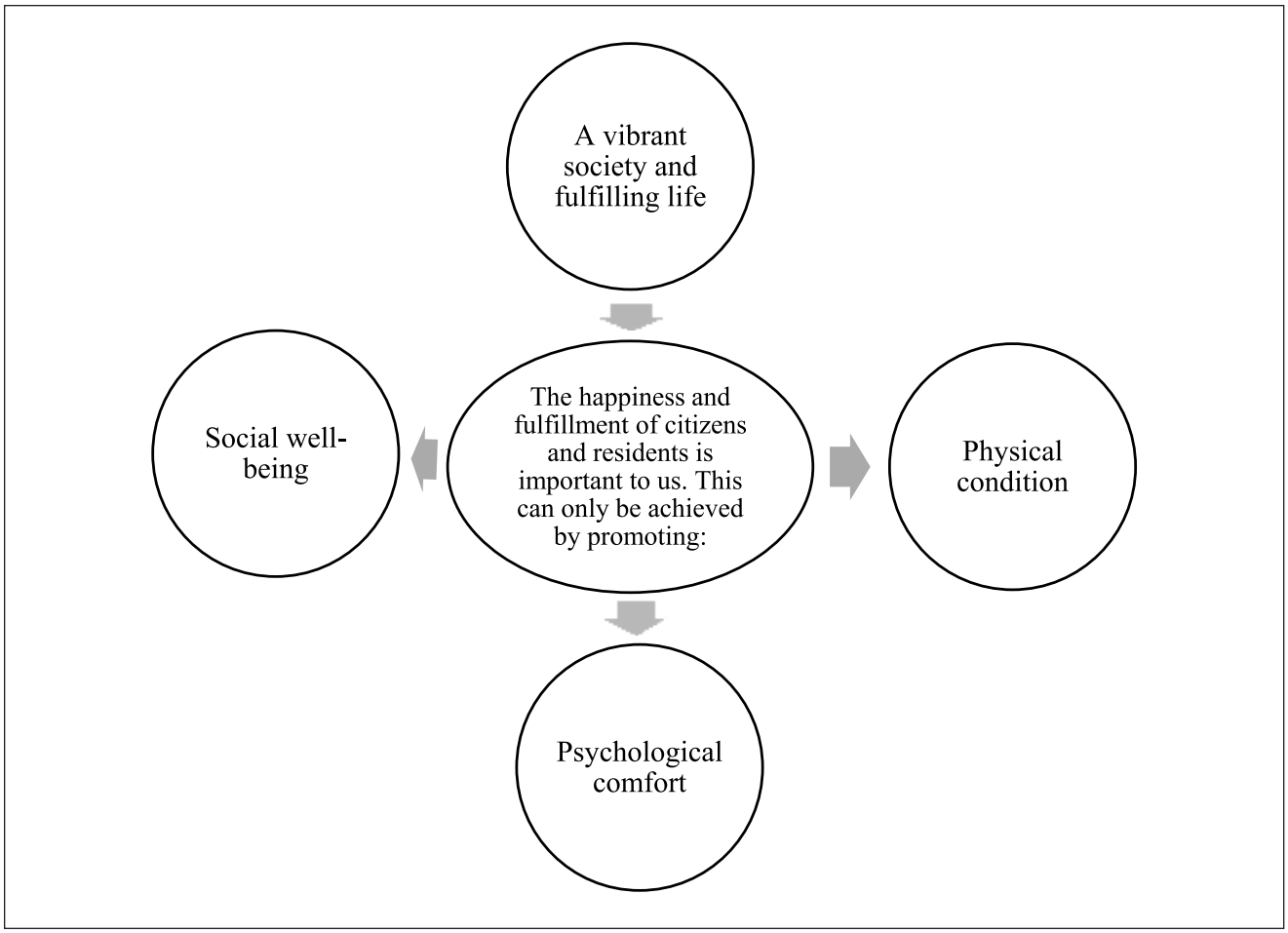

Figure 2. KSA 2030 Vision for Special Education.

difficult when the technology is not deployed appropriately. Technology in education can only be meaningful if it enhances the competency levels of students and teachers (Wong et al., 2008). Indeed, in-service teachers should be trained in the use and maintenance of assistive technology through professional development programs, and courses for preservice teachers should also cover technology they are likely to use in the classroom.

Other Policy Recommendations

Promoting awareness of services. The KSA government acknowledges the right of any person with a disability to access free educational, rehabilitation, and mental health services. To support independent mobility, the law also guarantees transportation options and accessibility features like ramps and elevators in public buildings, such as schools. However, a problem emerges when caregivers of individuals with disabilities shy away from helping them access services. This means that stigma is a huge issue affecting the success of disability services and special education in KSA. This demonstrates the urgent need for public awareness campaigns and educational programs in the Saudi community to dispel myths and create a more welcoming atmosphere that promotes the use of necessary services by people with disabilities (Alhumaid, 2021).

Expanding disability criteria. The Saudi government has also tried to extend the disability criteria, adding disabilities such as autism and vision problems (Spitler, 2017; Sulaimani & Gut, 2019). Learning disabilities have become a new study area. The government is attempting to create more programs that include more students with disabilities (Alsolami & Vaughan, 2023). By implementing different programs, a greater number of children can be served, demonstrating the government's ongoing efforts to support accessibility and inclusion in education.

Standardized diagnostic procedures. The absence of standardized diagnostic procedures makes it challenging for educators and other professionals to accurately recognize and assess the diverse needs of students with disabilities. Because of this, incorporating specialized educational interventions is more challenging. To address these problems and advance

a more inclusive and effective special education system in Saudi Arabia, it is imperative that standardized diagnostic techniques be established and that professionals and educators receive specialized training. The Saudi government could create efficient eligibility standards to identify children with disabilities before enrolling them in special programs through the Ministry of Education.

Special education standards. Standards that specify whether public and private schools are qualified to offer special education should also be established by the Ministry of Education (Alahmadi & El Keshky, 2019). The distribution of resources may also be based on these guidelines. For example, if an educational institution reports subpar outcomes, the interested parties may look into the causes. Should the shortage of special education teachers be the issue, the government has the authority to hire more instructors and place them in such establishments. As a result, standards would be crucial in ensuring that the Kingdom achieves its objectives for special education.

Suggestions for Future Research and Conclusion

Education is a key part of the Vision 2030 plan to transform Saudi Arabia both socially and economically. To work toward improving education overall and special education specifically, research must investigate the state of current educational services and their impact on students, society, and economic development. Researchers should also review the current literature on Saudi special education, identifying what scholars have achieved in the field and what gaps still exist, so that resources can be directed to the areas of greatest need.

Research is essential to solving a wide range of issues. There are a number of difficult issues with the implementation of inclusive education in Saudi Arabia that could be studied further. Future studies ought to look into the most effective strategies that the educational system might employ to improve inclusive education. For example, researchers could assess the relative benefits and costs of different schooling systems for children with disabilities. Future studies should look into trends in assistive technology that could improve inclusive education. Technology is always changing, and future scholars can examine any technological advancement that could potentially impact special education in Saudi Arabia.

Saudi Arabia is working harder than ever to make sure that everyone has access to high-quality education, through Vision 2030 and the Ministry of Education's current pro-inclusion initiatives. However, students with disabilities still find it challenging to pursue education. Improving access to educational services for students with disabilities is an example of a shared objective (Alharbi et al., 2019). Teachers, parents, and other stakeholders share this objective. It is the responsibility of educators, researchers, and policymakers in KSA to examine the issues with inclusive education programs, take note of lessons learned and difficulties encountered in the past, and find ways to improve and sustain inclusive education policies and best practices for Saudi students with disabilities.

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