

Educational Studies



ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/ceds20

Saudi public primary school teachers' perspectives on inclusive education

Mohaned G. Abed & Todd K. Shackelford

To cite this article: Mohaned G. Abed & Todd K. Shackelford (2023) Saudi public primary school teachers' perspectives on inclusive education, Educational Studies, 49:4, 614-627, DOI: 10.1080/03055698.2021.1873739

To link to this article: https://doi.org/10.1080/03055698.2021.1873739

	Published online: 17 Jan 2021.
	Submit your article to this journal $oldsymbol{oldsymbol{\mathcal{G}}}$
hil	Article views: 413
a a	View related articles 🗗
CrossMark	View Crossmark data ☑





Saudi public primary school teachers' perspectives on inclusive education

Mohaned G. Abeda and Todd K. Shackelford (Db

^aFaculty of Educational Graduate Studies, King Abdulaziz University, Jeddah, Saudi Arabia; ^bDepartment of Psychology, Oakland University, Rochester, Michigan, USA

ARSTRACT

The successful implementation of inclusive education depends on many factors, among the most important of which are as teachers' attitudes about and perspectives on inclusive education. The current study employed a qualitative research design to explore and identify factors that public school teachers identify as obstacles to successful inclusion of students with disabilities in the mainstream classroom. Semi-structured individual interviews allowed respondents to share their personal perspectives in narrative detail. Twenty-four public primary school teachers in Jeddah, Saudi Arabia participated. The results indicated that, in concert with their Western colleagues, Saudi teachers identified several factors as especially obstructive of inclusive education, including school readiness, lack of teacher training, and lack of effective partnerships with parents. We situate these results alongside previous research focused on Western teachers' attitudes about inclusive education, and we identify several areas for future research to advance the policy and practice of inclusive education in Saudi Arabia.

ARTICLE HISTORY

Received 2 August 2020 Accepted 6 January 2021

KEYWORDS

Inclusive education; primary school; Saudi Arabia

Introduction

"Inclusive education" is grounded in a rights-based philosophy adopted by the 2006 United Nations Convention on the Rights of Persons with Disabilities (UNESCO 2006). Inclusive education requires that schools accommodate in the mainstream classroom all children within their localities, including those with disabilities (Carrington & Macarthur, 2012; Mittler, 2012), and emphasises attendance, involvement, and achievement of all learners, particularly those with disabilities (Winans-Solis 2014).

The successful implementation of inclusive education depends on many factors, among the most important of which are as teachers' attitudes about and perspectives on inclusive education (Hsieh et al. 2012). Educators' attitudes about inclusive learning have implications both for how they conduct activities in the classroom and how they perceive and interpret the support that is available to them. Teachers with greater awareness of disabilities and a sense of responsibility for education learners with disabilities have a greater likelihood of successfully adopting inclusive education practices (Monsen, Ewing, and Kwoka 2014). Indeed, many studies (e.g., Cook, Cameron, and

Tankersley 2007) have documented that teachers' attitudes about inclusivity have important implications for the adoption of inclusive policies and practices.

General educators' attitudes

Although most teachers support inclusive education, in principle, many teachers report that they lack the requisite skills for educating and managing students with disabilities (Avramidis, Bayliss, and Burden 2000; McGregor and Campbell 2001; Robertson, Chamberlain, and Kasari 2003). Indeed, student educational development can be negatively affected by lack of teacher skill, and disabilities knowledge and awareness has important implications for teaching practices and behaviours, educators' attitudes towards the learner, and successful adoption of inclusive policies and practices (Jordan, Schwartz, and McGhie-Richmond 2009). Specialised training therefore can affect teachers' perspectives and attitudes about inclusive education and their ability to effectively deploy inclusive practices, not least because such training promotes increased acceptance and understanding of learners with disabilities (Yan and Sin 2014). Additionally, teachers have indicated that they have difficulties accessing or understanding the primary research literature addressing disabilities and inclusive education, which often produces feelings of inadequacy and frustration (e.g., Gidlund and Boström 2017). All told, teachers' attitudes about and perspectives on inclusive education are important factors in successful deployment of inclusive educational practices (MacFarlane and Woolfson 2013; De Boer, Pijl, and Minnaert 2011).

Much of the existing literature addressing teachers' perspectives on inclusive education has been conducted in Western countries, especially the U.S. and the U.K. (Christle and Yell 2010; Etscheidt and Curran 2010; Martin and Franklin 2009; Veck 2014). Much less is known about teachers' perspectives on inclusive education in non-Western countries. especially in the Middle East. Saudi Arabia, however, has received some attention from educational researchers (Abed and Shackelford 2020a; Alquraini and Rao 2020), following legislative changes described below.

Inclusive education in Saudi Arabia

In the 1990s, Saudi Arabia developed and implemented the Regulations of Special Education Programme and Institutes of Saudi Arabia (RSEPI; Al-Mousa 1999). The RSEPI specifies that children with disabilities must be provided with opportunities to access education in the least restrictive environment (i.e., mainstream or general classroom) and must receive appropriate educational services and support (Al-Mousa 2010). Notwithstanding the promulgation of RSEPI, its full implementation in Saudi Arabia is still lacking (Alasim and Paul 2019). There is a clear need to identify potential barriers to successful implementation of inclusive education in Saudi Arabia, such as teachers' attitudes about and perspectives on inclusive education.

Aim and significance of the current study

The current study is an exploratory, qualitative, interview-based investigation of the factors affecting Saudi public primary school teachers' attitudes about and perspectives on inclusive education. The study was designed to provide data that might be useful in



efforts to facilitate successful implementation of inclusive educational practices by Saudi primary school teachers.

In addition, the majority of Saudi-based educational research studies have employed quantitative approaches relying on a large survey samples (Alasim and Paul 2019; Alnahdi 2020; Alhumaid, Khoo, and Bastos 2020). The current study, in contrast, contributes to a smaller but growing qualitative literature designed to identify important issues by use of intensive interview-based techniques that can provide a richer and more detailed picture of the Saudi Arabian educational experience (Peter, Alem, and Knabe 2018; Abed and Shackelford 2020b). The aim of the current study, therefore, is to employ the qualitative method to provide deeper insights into Saudi public primary school teachers' perspectives on inclusive education.

Method

Design

The current study employs a qualitative research design. Semi-structured individual interviews allowed respondents to share their personal perspectives in narrative detail. Questions concerning aspects of inclusivity were posed in the context of an informal conversation, and each interview averaged 35 minutes. Interviews were recorded and transcribed verbatim. Each respondent was invited to offer comments on the transcript, including adding points of clarification, correction, or detail. The aim of using the qualitative method was to gather detailed, personal, and rich responses. Questions were designed to investigate teachers' attitudes about and perspectives on inclusive education in Saudi Arabia. The questions were: (1) To what degree to you believe the inclusion of children with disabilities in the mainstream classroom is important? (2) What, in your opinion, makes inclusion difficult to adopt? (3) What, in your opinion, are key factors that influence educators' attitudes towards inclusive education?

Participants

Twenty-four (11 women, 13 men) mainstream public primary school educators from several municipalities of Jeddah City (Saudi Arabia) were interviewed, identified by convenience sampling and word-of-mouth. Table 1 presents the available demographic details for respondents. Five respondents were aged 26-30 years; eight were aged 31–35 years; four were aged 36–40 years; five were aged 41–45 years; and one respondent was aged 46-50 years. The respondents had varying levels of teaching experience, ranging from 1 year to 30 years. One respondent held a master's degree, and the remainder held an undergraduate degree. Potential respondents were initially approached through their respective head teachers. No rewards were offered to the respondents for participating, and no respondent withdrew from the study at any point.

Procedure and materials

Prior to conducting the research, permission, ethical approval, and collaboration was secured from King Abdulaziz University and Jeddah City educational authorities. Upon

Table 1. F	Participant	demographics	(n = 24).
------------	-------------	--------------	-----------

Variable			Frequency
Gender	Male	13	
	Female	11	
Teaching	1–10	12	
Experience (years)	11-20	10	
	21-30	2	
Qualifications	Bachelors	23	
	Masters	1	
Age	25-30	5	
	31-35	8	
	36-40	4	
	41-45	5	
	46-50	1	
	51-55	1	
Knowledge of Special Education Needs?	YES	13	
	NO	11	

formal acquisition of consent (by letter) from the head teachers of the schools, participating teachers reviewed and signed a statement of informed consent. The confidentiality and privacy of all respondents were respected at all points during and following data collection.

Each interview was audio-recorded using a digital device. Interviews were then transcribed verbatim before being translated into English by a translator that was sourced locally. The mixed descriptive and inductive method was used to identify themes through the Thematic Analysis computer program available with Nvivo software.

Results

In this section, we report qualitative results of the semi-structured interviews in an effort to summarise the attitudes about and perspectives on inclusive education communicated by the sample of Saudi public primary school teachers. The themes addressed below were those identified by Thematic Analysis of verbatim transcribed responses entered into Nvivo software. Exemplar quotations from respondents are presented to illustrate representative responses.

Importance of inclusion

All participants agreed with and emphasised the importance of inclusion, its application, and its implementation. For example, Teacher 12 stated that: "The inclusion of children [with disabilities] in schools develops their capabilities and makes them able to depend on themselves in the future so that they can communicate in a smooth way that enables them to communicate with all members of society." Teacher 8 added, "That would help children with disabilities and their families to adapt and lead a normal life." Teacher 11 noted that, "Unifying education for all groups of society is a right granted to all and should not be subjected to theoretical studies for approval or opposition to its application or continuity, and it is a global demand that many countries call for and which all international, regional, and local United Nations organisations demand as human rights. The child -

that is, a child – has the right to enter regular schools in his community, and that is in his best interest in development, cognitive, social, and psychological terms. It is unfair to isolate this group because of disability."

Teacher 3 stated that, "The main goal of the integration is that the parents of children [with disabilities] reach safety from the disability crisis that they were exposed to which lies in the view of society for them. Instead of saying that their child is in special education institutes, we can say that their child is in ordinary schools, and instead of imprisoning him between the walls of the house for fear that someone will see it. Having the child in an inclusive classroom helps him to participate effectively in social situations, and this contributes to his emotional balance and self-esteem. Not only that, but it also has a positive impact on his mental, psychological, and physical abilities."

Teacher 21 commented that, "[The aim of inclusive education] is to facilitate social adaptation of students with disabilities as part of the society in which he/she must live. [Inclusive education] teaches them that they have the same rights and duties as other individuals. Thus, they achieve their emotional balance and psychological and social compatibility with the development of linguistic outcomes through their participation with others. This also changes the vision of ordinary children towards children [with disabilities] from negative to positive."

Attitudes about inclusion

The findings indicated that the teachers who participated have varying views (positive, negative, and none) towards inclusive education. Most teachers reported positive attitudes such as, "I think inclusion is the ideal solution and the right environment for children [with disabilities]" (Teacher 13). Some teachers reported negative attitudes such as, "Inclusion creates many problems for students [with disabilities] psychologically, academically, and socially" (Teacher 20). Other teachers reported neutral or ambiguous. For example: "It's very confusing and, to be honest, I think I am neutral in my opinion about inclusion" (Teacher 16).

The majority of the interviewed teachers indicated that their attitudes about and perspectives on inclusive education depend on how it is implemented in the school. For example, Teacher 17 noted that, "If the inclusion program is to succeed and be advantageous, we must believe that current general teachers are inappropriate instructors, as many of them do not have background knowledge about students [with disabilities]." The findings also indicate that some of the interviewed teachers hold views that those with more severe disabilities should not be included, while others with moderate disabilities, including visual and hearing impediments, for example, need not be included in mainstream education for the entire day. The findings further suggest that teachers are more inclined to work with those students who have mild problems such as Learning Disabilities and Attention Deficit Disorder. For instance, Teacher 8 shared that, "I think we should differentiate. Some categories are suitable for inclusion, and others are not. On this criterion, assessment and diagnosis must be made to determine whether [inclusion] is appropriate or not." In addition, most respondents were more inclined to include children with physical disabilities over those with mental disabilities. For example, Teacher 21 commented that, "It is easier to include children with motor disabilities than children who have a mental disability or autism."

Other factors that affect attitudes about inclusion

Other factors that affect attitudes about and perspectives on inclusive education noted by the teachers were organised thematically into the five categories discussed below.

Challenges of including children with disabilities in the mainstream classroom

The interviewed teachers reported that a leading factor affecting their attitudes about and perspectives on inclusive education is their concern that low levels of academic, social, and psychological accomplishment of children with disabilities would negatively impact children without disabilities in the mainstream classroom. For example, Teacher 18 commented that, "One of the disadvantages of inclusion is the low academic level of individuals with disabilities and their lack of acceptable levels in reading and writing, which would force teachers to slow the teaching process and that would negatively affect the learning of the other children."

School readiness

The interviewed teachers emphasised that one of the most important factors affecting their attitudes about and perspectives on inclusive education is the availability of appropriate disabilities support from the school. Teachers stressed the importance of having a team from the school to support the inclusion process. The members of such a team should include "a special education teacher, student counsellor, the school principal, and teachers who have a positive impact on the rest of the teachers" (Teacher 6). Teacher 20 pointed out the importance of "the availability of educational and therapeutic support services in inclusive schools such as hearing, speech, behavioral, medical, and occupational therapy." One teacher stated that, "This team should hold meetings with teachers and school administrators and explain to them how they can reach the goal of a comprehensive school for all" (Teacher 3). Another teacher commented that, "The most important thing for the team to do is to overcome and remove any obstacles that may affect the [inclusion] process" (Teacher 8).

The other factor that demonstrates school readiness for inclusive education, as perceived by the interviewed teachers, is the availability of financial support and other resources and technology. For instance, Teacher 23 commented that, "Without the resources, including technology and associated funding, the team will not be able to provide the necessary resources for inclusion and its success in the school." Teacher 4 emphasised that, "If the schools cannot afford to provide the relevant resources and support, inclusion will not succeed."

Lack of teacher training and knowledge

The interviewed teachers agreed that teacher preparation, training, and their knowledge and understanding of disabilities are among the most important factors affecting their attitudes about and perspectives on inclusive education. One teacher commented that, "Learning during the university level is very important; programs should focus on educating teachers in a practical way on appropriate educational strategies and provide them with the necessary knowledge and skills" (Teacher 10). Another teacher added, "Teachers must have positive attitudes, and through this, they will possess the desire and belief in inclusion as a right for all, and ... will overcome any obstacles that prevent the provision



of the appropriate environment for the success of [inclusion]" (Teacher 1). Teacher 16 stated that, "When training opportunities are availed, they deliver a basic comprehension of inclusion and assist teachers in getting an idea of the teaching methods and instructional variations required to deal with a learning environment that is inclusive."

All participants referred to the utility of training both before teaching and in-service training. For instance, one of the teachers stated that, "The problem is that the public school teacher does not receive any courses during their university education, and this affects their perspectives on inclusion" (Teacher 24). Another teacher suggested that, "The local educational authorities should include this subject in the training programs for the teachers within the regular semester" (Teacher 14). All participants agreed that teachers must have high self-efficacy for inclusion to succeed. For instance, Teacher 12 commented that, "Teachers must believe they are competent and have the skills needed for inclusion."

Parents' partnerships and knowledge

The interviewed teachers perceived as very important parents' knowledge and understanding of their roles and the importance of teacher-parent partnerships in inclusive education planning and implementation. Teachers offered several suggestions for facilitating successful inclusive education with regard to parents of children with disabilities: For example: "Schools should provide practical training for the parents, explaining the parents' role and the knowledge needed" (Teacher 11); "Parents must be included and be part of the multidisciplinary team in schools and should be informed of all decisions" (Teacher 1).

Classroom environment

The interviewed teachers agreed that the classroom environment is among the factors affecting their attitudes about and perspectives on inclusive education. For example: "The teacher is a human being, and it is important for him to conduct the educational process in an appropriate and healthy environment. With the presence of the child with a disability, the teacher finds it difficult to teach the ordinary children, especially when one looks at the fact that there is limited time to complete the curriculum. So how is the teacher to work within these restrictions if there are one or more students with disabilities in class?" (Teacher 2). Another teacher commented: "To be realistic, with the current situation, the teacher will believe inclusion is an additional pressure for him unless an assistant teacher is available. The absence of an assistant teacher increases the difficulties for the teacher" (Teacher 13). Another teacher pointed out that, "The lack of preparedness of the regular educational system in terms of designing and planning the school and the tools and means necessary for the inclusion [of children with varied] disabilities is a factor that needs to be considered" (Teacher 4). Another teacher noted that, "The size of the classroom [must be] appropriate for freedom of movement to achieve the goals of cooperative education" (Teacher 8).

Several teachers mentioned problems with the classroom environment attributable to the school's lack of preparation for inclusive education. Teacher 11 mentioned that, "Children [with disabilities] ... need buildings that are prepared for them in terms of designs and equipment." Teacher 14 noted that, "Our classrooms are crowded with students, and the classrooms are not equipped, added to that we need to complete the curriculum. So how could we add to all of that the caring and consideration [required for] the inclusion of students [with disabilities]?"

Discussion

Using a semi-structured and qualitative interview design, the current exploratory research suggests that attending to the predictors and consequences of Saudi public primary school teachers' perspectives on inclusive education is important for successful implementation of inclusive educational practices in Saudi Arabia (Avramidis and Norwich 2002). Some previous work has suggested several factors that might affect teacher attitudes about and perspectives on inclusive education, including disability severity, availability of support structures and services, and teacher training (Falkmer et al. 2015; Vaz et al. 2015). The findings of the current study contribute to this small but growing body of knowledge, with special attention to the Saudi Arabian educational context. In particular, and as will be discussed below, the current study provides insight into the important roles of teacher attitudes about inclusive education (Vaz et al. 2015).

Corroborating the results of previous studies, interviewed teachers in the current study agreed that students with disabilities can benefit from inclusion in the mainstream classroom (Sharma et al. 2006; Sharma, Moore, and Sonawane 2009). Saudi teachers also advanced the belief that understanding and acceptance of students with disabilities can be facilitated by inclusive education, while also delivering social and academic benefits to students with disabilities (Sharma, Moore, and Sonawane 2009). Sharma et al. (2006) describe inclusive education as a way of promoting social justice and ensuring that all students have equal access to educational opportunities. In a similar manner, the present study's participants advanced the view that learners with disabilities should be seen to have the right to access education within the context of the mainstream classroom. In addition, many of the Saudi teachers advanced the belief that inclusive education would foster self-esteem and a sense of belonging in students with disabilities. A broader contribution of the current research is the identification of five factors that affect Saudi primary public school teachers' attitudes about inclusion. In what follows, we review these factors and situate what we know about each factor within the relevant research and policy literatures. We close with brief discussions of several policy and practice implications of the current research, and address several directions for future research.

Challenges of including children with disabilities in the mainstream classroom

Corroborating the findings of Van Reusen, Shoho, and Barker (2000) with Western teachers, Saudi teachers in the current research reported concern that including learners with disabilities in the mainstream classroom will have a negative impact on the learning context, the delivery of content by educators, and the quality of classroom learning. Indeed, Diamond and Innes (2001) report that these concerns sometimes may be well founded, such as when teachers do not attend to or invest in accommodating students with disabilities.

In examining negative impacts of inclusive education, McLeskey and Waldron (2002) hypothesised that educators are concerned that inclusion may prevent reaching learning outcomes in the classroom. In the current study, several teachers identified similar concerns about inclusion in the Saudi classroom. Taken together, these finding across cultures indicate that educators must be competent in teaching practices related to disabilities and focus on learners regardless of disability status (Persson 2013). Some have argued that education cannot be inclusive if teachers' have negative attitudes about or expectations for learners with disabilities (Florian 2014).

The practices and context of the inclusive classroom also are important for promoting and enhancing the attitudes of learners towards their peers with disabilities and on perceptions about whether they should be included (e.g., Hurst, Corning, and Ferrante 2012). For example, learners who accessed specialised equipment like wheelchairs and had opportunities to read books about disability were more willing to embrace peers with disabilities than those who had limited access to such resources (Favazza and Odom 1997).

School readiness

Conventional early childhood teacher training programmes do not consistently equip teachers with the requisite knowledge to respond successfully to children's unique needs, including disabilities (Chang, Early, and Winton 2005). Moreover, teachers themselves often report that they are not adequately equipped to instruct or manage learners with disabilities (Wei, Darling-Hammond, and Adamson 2010). This previous work suggests that it is important for pre-service educators to be sufficiently immersed in field experiences and coursework so that they develop the skills to successfully instruct learners with disabilities.

The World Health Organization (2015) Global Disability Action Plan recognises the important role played by timely access to assistance and assistive devices in facilitating educational involvement. Indeed, many of the Saudi teachers in the current study specifically noted how detrimental it can be if students with disabilities do not have access to such devices. Unfortunately, in Saudi Arabia and elsewhere, learners with disabilities often face significant impediments accessing the services they need (Nesbitt et al. 2012). Most broadly, a key obstacle to successful implementation of inclusive education is lack of financial resources to support school readiness (Engelbrecht, Oswald, and Forlin 2006).

Lack of teacher training and knowledge

Many of the Saudi teachers interviewed in this study reported that their lack of adequate training to instruct and manage inclusive classrooms was a significant obstacle to implementing inclusive education. Superior teacher training produces superior learning outcomes for learners with disabilities (Monsen, Ewing, and Kwoka 2014). In particular, ready access to relevant resources, including appropriate technology and support structures, advance efforts to implement inclusive educational programs and classrooms (Monsen, Ewing, and Kwoka 2014).

The results of the current and previous research highlight the important role played by self-efficacy in teaching skills (Sharma, Loreman, and Forlin 2012). These results also showcase the importance of appropriate teacher training and knowledge about instructing and managing students with disabilities in an inclusive educational context. There is a clear need for research that identifies the components of teacher training programs more closely linked with effective educational inclusion (De Boer, Pijl, and Minnaert 2011).

Specialised training addressing inclusive education results in more affirmative perceptions about inclusivity in education (Mulvihill, Shearer, and Van Horn 2002). In addition, this training leads to marked improvements in teacher skill at implementing inclusive educational classrooms (Hsien, Brown, and Bortoli 2009). For example, preservice educators in the early childhood phase who have participated in field experiences and coursework linked to inclusion and disability show improved perceptions, skills, and understanding with regard to learners with disabilities (Jeon and Peterson 2003).

The results of the current research with Saudi teachers are consistent with research by Jobe, Rust, and Brissie (1996) documenting that Western teachers with more training focused on inclusive education were also more likely to endorse inclusion. Relatedly, previous research indicates that coursework in special education has positive effects on pre-service teachers' attitudes and perceptions about inclusion (Romi and Leyser 2006; see also Campbell, Gilmore, and Cuskelly 2003).

Parents' partnerships and knowledge

The current research highlights the importance of recognising the role played by parents as allies in efforts to develop a learning environment that is inclusive (Singal 2016). Based on Saudi teachers' reports, parents were mostly accepting and supportive of their children's education, and this extended to parents of children with learning disabilities. However, according to teachers, many parents (like many teachers) may not have the knowledge necessary to serve as an effective partner in teacher efforts to facilitate inclusive education. Within an inclusive education system, parents constitute crucial stakeholders and must be vested with the power to hold institutions and educators accountable (Ryan 2002).

Classroom environment

Based on Saudi teachers' reports - and consistent with parallel work with Western teachers (e.g., Semmel et al. 1991), an important obstacle to inclusive education is the sense from many teachers that implementing inclusion in the mainstream classroom will substantially add to teacher workload. Moreover, in Saudi Arabia as elsewhere (e.g., Semmel et al. 1991), teachers express the view that learners with disabilities require substantially greater assistance compared to learners without disabilities, to the extent that inclusion might be contraindicated (Semmel et al. 1991).

The classroom environment includes and reflects teacher perceptions of the likely success of inclusive education, and these perceptions vary with the type and severity of disability. There are differences in the attitudes of general educators regarding inclusive education according to the type and severity of disability (Ellins and Porter 2005; Scruggs and Mastropieri 1996). For example, educators express less acceptance of inclusive education when the disabilities of learners are more severe (Mushoriwa 2001).



Implications and recommendations

The results of the current research suggest that Saudi teachers view training in special education as vital to successful implementation of inclusive education. This view suggests that institutions of higher education should develop programs in teacher education that integrate courses in special education to provide teachers with the skills and knowledge to meet the different requirements of students in the classes they teach. The Saudi Ministry of Education, working in collaboration with institutions of higher education, could design professional development programs that will assist teachers already in the field to acquire the requisite skills and knowledge to facilitate successful implementation of inclusive education. The results of the current research also suggest that it is important for those responsible for training teachers and crafting policy to analyse the existing literature on the effect of coursework on the attitudes of teachers about inclusion (Taut & Purdie 2000).

In Saudi Arabia, the system of education is highly centralised, with the Ministry of Education finally responsible for all decisions linked to education. It is for this reason that recommended changes to teacher training must secure support of the Ministry of Education, in addition to the support of regional and local stakeholders. To this end, it will be important for the Ministry of Education to develop clear policies on special education, notably related to inclusive education.

The results of the current research indicate the utility of developing a common store of knowledge, dispositions, and skills that will ensure that teachers are prepared through appropriate training for successful implementation of inclusive education. The content of this training ought to be developed and deployed intentionally and explicitly to bolster teachers' understanding of disabilities and could begin by identifying recommendations for modification and adaptation of current teacher training curricula to enhance understanding and acceptance of disabilities and of the students with disabilities (Hadadian and Hargrove 2001).

In-service training initiatives need to address a number of different elements including: awareness of how a classroom and curriculum can be adapted, in addition to how changes can be made to teaching approaches, to incorporate students with disabilities. Educators should have full awareness of where assistance and advice can be sourced for dealing with students with disabilities. An inclusive education support team made up of teachers, administrators, and parents should be coordinated by a specialised and appropriately trained staff member.

Acknowledgement

The Deanship of Scientific Research (DSR) at King Abdulaziz University, Jeddah, Saudi Arabia has funded this project, under grant no. (KEP-97-120-42) The authors, therefore, gratefully acknowledge the DSR for financial support.

Disclosure statement

No potential conflict of interest was reported by the authors.



Notes on contributor

Mohaned G. Abed is Associate Professor in the Faculty of Educational Graduate Studies at King Abdulaziz University in Jeddah, Saudi Arabia. Todd K. Shackelford is Distinguished Professor and Chair, Department of Psychology, Oakland University in Rochester, Michigan, USA.

ORCID

Todd K. Shackelford (b) http://orcid.org/0000-0001-8101-4292

References

- Abed, M. G., and T. K. Shackelford. 2020a. "Educational Support for Saudi Students with Learning Disabilities in Higher Education." *Learning Disabilities Research & Practice* 35 (1): 36–44. doi:10.1111/ldrp.12214.
- Abed, M. G., and T. K. Shackelford. 2020b. "Saudi Teachers' Perceptions of In-service Education and Training Addressing Attention-deficit/hyperactivity Disorder." *Learning Disabilities Research & Practice* 35: 100–106.
- Alasim, K., and P. V. Paul. 2019. "Understanding Factors that Affect Teachers' Attitudes toward Inclusion of Students Who are Hard of Hearing in Saudi Arabia." *Deafness & Education International* 21: 210–226.
- Alhumaid, M. M., S. Khoo, and T. Bastos. 2020. "Self-efficacy of Pre-service Physical Education Teachers toward Inclusion in Saudi Arabia." *Sustainability* 12: 3898.
- Al-Mousa, N. 1999. *Development Process of Special Education in Saudi Arabia*. Riyadh: Directorate General of Special Education in Saudi Arabia.
- Al-Mousa, N. 2010. The Experience of the Kingdom of Saudi Arabia in Mainstreaming Students with Special Educational Needs in Public Schools. Riyadh: Arab Bureau of Education for the Gulf States.
- Alnahdi, G. 2020. "Are We Ready for Inclusion? Teachers' Perceived Self-efficacy for Inclusive Education in Saudi Arabia." *International Journal of Disability, Development, and Education* 67: 182–193.
- Alquraini, T. A., and S. M. Rao. 2020. "Assessing Teachers' Knowledge, Readiness, and Needs to Implement Universal Design for Learning in Classrooms in Saudi Arabia." *International Journal of Inclusive Education* 24: 103–114.
- Avramidis, E., and B. Norwich. 2002. "Teachers' Attitudes toward Integration/inclusion: A Review of Literature." *European Journal of Special Need Education* 17: 129–147.
- Avramidis, E., P. Bayliss, and R. Burden. 2000. "A Survey into Mainstream Teachers' Attitudes Towards the Inclusion of Children with Special Educational Needs in the Ordinary School in One Local Education Authority." *Educational Psychology* 20: 191–211.
- Campbell, J., L. Gilmore, and M. Cuskelly. 2003. "Changing Student Teachers' Attitudes Towards Disability and Inclusion." *Journal of Intellectual & Developmental Disability* 28: 369–379.
- Carrington, S. B and J. Macarthur. (2012). Teaching in inclusive school communities. New York: Wiley & Sons.
- Chang, F., D. M. Early, and P. J. Winton. 2005. "Early Childhood Teacher Preparation in Special Education at 2- and 4- Year Institutions of Higher Education." *Journal of Early Intervention* 27: 110–124.
- Christle, C. A., and M. L. Yell. 2010. "Individualized Education Programs: Legal Requirements and Research Findings." *Exceptionality: A Special Education Journal* 18: 109–123.
- Cook, B. G., D. L. Cameron, and M. Tankersley. 2007. "Inclusive Teachers' Attitudinal Ratings of Their Students with Disabilities." *The Journal of Special Education* 40: 230–238.
- De Boer, A., S. J. Pijl, and A. Minnaert. 2011. "Regular Primary Schoolteachers' Attitudes Towards Inclusive Education: A Review of the Literature." *International Journal of Inclusive Education* 15: 331–353.



- Diamond, K. E., and F. K. Innes. 2001. "The Origins of Young Children's Attitudes toward Peers with Disabilities." In Early Childhood Inclusion: Focus on Change, edited by M. J. Guralnick, pp. 159–178. Baltimore, MD: Brookes.
- Ellins, J., and J. Porter. 2005. "Departmental Differences in Attitudes to Special Educational Needs in the Secondary School." British Journal of Special Education 32: 188–195.
- Engelbrecht, P., M. Oswald, and C. Forlin. 2006. "Promoting the Implementation of Inclusive Education in Primary Schools in South Africa." British Journal of Special Education 33: 121–129.
- Etscheidt, S., and C. M. Curran. 2010. "Peer-reviewed Research and Individualized Education Programs (leps): An Examination of Intent and Impact." Exceptionality: A Special Education Journal 18: 138-150.
- Falkmer, M., K. Anderson, A. Joosten, and T. Falkmer. 2015. "Parents' Perspectives on Inclusive Schools for Children with Autism Spectrum Conditions." International Journal of Disability, Development, and Education 62: 1-23.
- Favazza, P. C., and S. L. Odom. 1997. "Promoting Positive Attitudes of Kindergarten-age Children toward People with Disabilities." Exceptional Children 63: 405-418.
- Florian, L. 2014. "What Counts as Evidence of Inclusive Education?" European Journal of Special Needs Education 29: 286-294.
- Gidlund, U., and L. Boström. 2017. "What Is Inclusive Didactics?: Teachers' Understanding of Inclusive Didactics for Students with EBD in Swedish Mainstream Schools." International Education Studies 10: 87-99.
- Hadadian, A., and L. Hargrove. 2001. "Childcare Perspectives on Inclusion: Do We Have a Long Way to Go?" Journal of Early Intervention 19: 49-58.
- Hsieh, W. Y., C. M. Hsieh, M. Ostrosky, and J. McCollum. 2012. "Taiwanese First-grade Teachers' Perceptions of Inclusive Education." International Journal of Inclusive Education 16: 71–88.
- Hsien, M., P. M. Brown, and A. Bortoli. 2009. "Teacher Qualifications and Attitudes toward Inclusion." The Australasian Journal of Special Education 33: 26-41.
- Hurst, C., K. Corning, and R. Ferrante. 2012. "Children's Acceptance of Others with Disability: The Influence of a Disability-simulation Program." Journal of Genetic Counseling 21: 873-883.
- Jeon, H. J., and C. A. Peterson. 2003. "Pre-service Teachers' Attitudes toward Inclusion: Early Childhood Education and Elementary Education Programs." Journal of Early Childhood Teacher Education 24: 171-179.
- Jobe, D., J. O. Rust, and J. Brissie. (1996). Teacher attitudes towards inclusion of students with disabilities into regular classrooms. Education, 117 (1), 148–154.
- Jordan, A., E. Schwartz, and D. McGhie-Richmond. 2009. "Preparing Teachers for Inclusive Classrooms." Teaching and Teacher Education 25: 535–542.
- MacFarlane, K., and L. M. Woolfson. 2013. "Teacher Attitudes and Behavior toward the Inclusion of Children with Social, Emotional and Behavioral Difficulties in Mainstream Schools: An Application of the Theory of Planned Behavior." Teaching and Teacher Education 29: 46–52.
- Martin, K., and A. Franklin. 2009. "Disabled Children and Participation in the UK: Reality or Rhetoric." In A Handbook of Children and Young People's Participation: Perspectives from Theory and Practice, edited by B. Percy-Smith and N. Thomas, pp. 97–104. London: Routledge.
- McGregor, E., and E. Campbell. 2001. "The Attitudes of Teachers in Scotland to the Integration of Children with Autism into Mainstream Schools." Autism 5: 189–207.
- McLeskey, J., and N. L. Waldron. 2002. "Inclusion and School Change: Teacher Perceptions regarding Curricular and Instructional Adaptations." Teacher Education and Special Education 25: 41-54.
- Mittler, P. (2012). Working towards inclusive education. New York: Routledge.
- Monsen, J. J., D. L. Ewing, and M. Kwoka. 2014. "Teachers' Attitudes Towards Inclusion, Perceived Adequacy of Support and Classroom Learning Environment." Learning Environments Research 17: 113-126.
- Mulvihill, B. A., D. Shearer, and M. L. Van Horn. 2002. "Training, Experience, and Child Care Providers' Perceptions of Inclusion." Early Childhood Research Quarterly 17: 197–215.
- Mushoriwa, T. 2001. "A Study of the Attitudes of Primary School Teachers in Harare Towards the Inclusion of Blind Children in Regular Classes." British Journal of Special Education 28: 142–147.



- Nesbitt, R. C., S. Mackey, H. Kuper, M. Muhit, and G. V. S. Murthy. 2012. "Predictors of Referral Uptake in Children with Disabilities in Bangladesh–exploring Barriers as a First Step to Improving Referral Provision." *Disability and Rehabilitation* 34: 1089–1095.
- Persson, E. 2013. "Raising Achievement through Inclusion." International Journal of Inclusive Education 17: 1205–1220.
- Peter, D. J., S. Alem, and B. Knabe. 2018. "Reassessing Cultural Capital: Access to Employment for Women with Disabilities in Saudi Arabia." *Equality, Diversity, and Inclusion* 37: 265–282.
- Robertson, K., B. Chamberlain, and C. Kasari. 2003. "General Education Teachers' Relationships with Included Students with Autism." *Journal of Autism and Developmental Disorders* 33: 123–130.
- Romi, S., and Y. Leyser. 2006. "Exploring Inclusion Preservice Training Needs: A Study of Variables Associated with Attitudes and Self-efficacy Beliefs." *European Journal of Special Needs Education* 21: 85–105.
- Ryan, J. 2002. "Promoting Inclusive School-community Relationships: Administrator Strategies for Empowering and Enabling Parents in Diverse Contexts." *Journal of Teaching and Learning* 2: 1–20.
- Scruggs, T. E., and M. A. Mastropieri. 1996. "Teacher Perceptions of Mainstreaming/inclusion 1958-1995: A Research Synthesis." *The Council for Exceptional Children* 63: 59–74.
- Semmel, M. I., T. V. Abernathy, G. Butera, and S. Lesar. 1991. "Teacher Perceptions of the Regular Education Initiative." *Exceptional Children* 58: 9–24.
- Sharma, U., C. Forlin, T. Loreman, and C. Earle. 2006. "Pre-service Teachers' Attitudes, Concerns, and Sentiments about Inclusive Education: An International Comparison of Novice Pre-service Teachers." *International Journal of Special Education* 21: 80–93.
- Sharma, U., D. Moore, and S. Sonawane. 2009. "Attitudes and Concerns of Pre-service Teachers regarding Inclusion of Students with Disabilities into Regular Schools in Pune, India." *Asia-Pacific Journal of Teacher Education* 37: 319–331.
- Sharma, U., T. Loreman, and C. Forlin. 2012. "Measuring Teacher Efficacy to Implement Inclusive Practices." *Journal of Research in Special Educational Needs* 12: 12–21.
- Singal, N. 2016. "Schooling Children with Disabilities: Parental Perceptions and Experiences." *International Journal of Educational Development* 50: 33–40.
- Tait, K., and N. Purdie. (2000). Attitudes Toward Disability: Teacher education for inclusive environments in an Australian university. *International Journal of Disability, Development and Education* 47(1), 25–38. doi:10.1080/103491200116110
- UNESCO. 2006. Embracing Diversity: Creating Inclusive and Leaning-friendly Environments. Bangkok: UNES.
- Van Reusen, A. K., A. R. Shoho, and K. S. Barker. 2000. "High School Teacher Attitudes toward Inclusion." *The High School Journal* 84: 7–20.
- Vaz, S., N. Wilson, M. Falkmer, A. Sim, M. Scott, R. Cordier, and T. Falkmer. 2015. "Factors Associated with Primary School Teachers' Attitudes Towards the Inclusion of Students with Disabilities." *PloS One* 10: e0137002.
- Veck, W. 2014. "Hope, Disability and Inclusive Participation in Education." *International Journal of Inclusive Education* 18: 177–195.
- Wei, R. C., L. Darling-Hammond, and F. Adamson. 2010. *Professional Development in the United States: Trends and Challenges*. Dallas, TX: National Staff Development Council.
- Winans-Solis, J. 2014. "Reclaiming Power and Identity: Marginalized Students' Experiences of Service-learning." *Equity & Excellence in Education* 47: 604–621.
- World Health Organization. 2015. WHO Global Disability Action Plan 2014–2021: Better Health for All People with Disability. Geneva, Switzerland: World Health Organization.
- Yan, Z., and K. Sin. 2014. "Inclusive Education: Teachers' Intentions and Behaviour Analysed from the Viewpoint of the Theory of Planned Behaviour." *International Journal of Inclusive Education* 18: 72–85.