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## Current Issues and Future Directions in Australian Special and Inclusive Education

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*Abstract: In this article we review the medical, human rights, social and social interactionist models of disability, and consider how these differing perspectives have influenced the provision of educational services to students with disability in Australia. We contend that the shift in educational policy and provision, from supporting to including students with disability, has engendered a need for targeted professional development for both general and special education teachers. A model illustrating the unique skills of special educators and the common skills, knowledge and attitudes required by all teachers to implement effective inclusive education is presented and priorities for future research discussed.*

### Introduction

Almost 20 years ago, Forlin and Forlin (2000) found that special education research in Australia focussed on the identification and diagnosis of disability and the development of disability-specific interventions that could be delivered in segregated settings. A recent literature search to determine trends in Australian research in the field of special education since the introduction of the Disability Standards for Education in 2005 (Commonwealth of Australia, 2006) revealed a major focus on inclusive education (Ralston, Dally & Dempsey, 2019). Despite limiting the search terms to 'special education' and 'Australia', only 12% of the articles investigated disability specific issues, while the majority focused predominantly on inclusive education principles or practice. In these articles, concerns were raised about the extent to which current legislation, funding models, policies and professional standards are supporting schools and teachers to provide optimal learning experiences for students with disability in mainstream settings. Of specific interest were the skills, knowledge and attitudes teachers need for the successful inclusion of students with disability and the preparedness of both general and special education teachers to work collaboratively in inclusive contexts (Ralston et al., 2019).

This shift, over the past 20 years in the focus of special education research from disability support to inclusion support, may not be so surprising given the increase in the number of students with disability in Australia attending mainstream classes or schools (Dempsey, 2011). With the increasing trend towards the inclusion of students with disability in mainstream schools there has been a commensurate change in the working contexts and roles of both general and special education teachers (Dempsey & Dally, 2014). In the inclusion era, many special educators are now expected to have the skills and capacities to work in mainstream classrooms and schools, while general education teachers are required to understand and accommodate the learning, social and behavioural needs of students with disability (Forlin & Chambers, 2017). In this article we explore how the emergence of inclusive education has influenced Australian special education research and practice and consider the implications for teacher professional learning and future research directions.

In order to facilitate a national dialogue about current and future issues in Australian special and inclusive education research and practice, a one-day symposium was convened at the University of Newcastle, Australia, in November 2015. Symposium participants were five special education academic staff members from the University of Newcastle, along with four special or inclusive education academics from the Australian Capital Territory, New South Wales, Victoria and Western Australia. In particular, the symposium participants sought to investigate what general and special education teachers need to know and do in the inclusive era. A conceptual framework to encapsulate the complementary and specific skills required by general and special education teachers was developed. The model proposes that general and special education teachers each play a unique and important role in enabling inclusive education. Effective inclusive education is underpinned by the common knowledge, skills and attitudes required of all Australian teachers. Additional to this shared professional platform are the distinct sets of knowledge and skills that define the work of general and special education teachers.

In this article we review the medical, human rights, social and social interactionist models of disability, and consider how these differing perspectives have influenced the provision of educational services to students with disability in Australia. We present a conceptual framework for the professional skills required by general and special education teachers with reference to the models of disability support and disability inclusion. We conclude the article by identifying future research directions to guide teacher preparedness for both special and inclusive education.

## **Models of Disability Support**

Historically, special education was based on a medical model which regarded disability as a deficit requiring care and treatment (World Health Organisation (WHO), 1980), whereas inclusive education has a social justice agenda and is positioned within the human rights model (WHO, 2001). Successive variations of these models provide frameworks for intervention that influenced the provision of special and inclusive education (Dixon, 2019; Forlin & Chambers, 2017).

### **Medical Model**

The medical model posits that disability is caused by an impairment that is exclusively located within an individual's biological make-up (Rees, 2017). Medical terminology dominated, with *symptoms* described relative to developmental and functional norms, *diagnosis* with limitations labelled, and *treatment prescribed* to remediate or *cure* the

condition (Hodkinson, 2016). Support focussed on providing care for people with a disability and helping them change their behaviour or minimise their disability with medication, therapy and educational interventions. Decisions about interventions for children were typically made by professionals, without consultation with families (Hodkinson, 2016).

### **Human Rights Model**

The human rights model is based on the concept of equality and the belief that all people should have fundamental freedoms and equal rights to life aspects such as dignity, justice and education. These principles were established in the *Universal Declaration of Human Rights* (United Nations, 1948). This declaration necessitated a shift from the provision of *care* to the provision of *education* (Forlin & Forlin, 2000). Established providers of care realigned their practice and began teaching children with disability within their hospitals or institutions. The rise of special schools eventuated as the notion of care was separated from that of education, which aimed to maximise independence rather than perpetuate dependence (Booth, 2000). The human rights model recognised the learning potential of all children, however, typically children with disability were educated in segregated environments that restricted their access to the mainstream curriculum and to same-aged peers without disabilities (Gartner & Lipsky, 2002).

The call to provide education for children with disability in mainstream settings gained impetus through the *Salamanca Statement* (UNESCO, 1994) which asserted that inclusion and participation in mainstream schools was “essential to human dignity and to the enjoyment and exercise of human rights” (p. 11). At this time, inclusion was conceptualised as the co-location of children with disability in schools with their same-aged peers. However, often this *integration* put the onus on children with disability to ‘fit-in’ to the existing educational environment with, no or minimal, modifications to support or address the student’s learning needs (Heward, 2014).

Inclusive education practices were enhanced through the *Convention on the Rights of Persons with Disabilities* (UNCRPD) (United Nations, 2006) which committed signatories to promote the inclusion of children with disability through the provision of individualised adjustments and support. In addition, the UNCRPD (2006) highlighted the need to provide professional learning for teachers in aspects such as disability awareness, effective educational techniques and materials, and augmentative and alternative communication.

### **Social Model**

The social model of disability purports that disability is a socially created problem, not an attribute of an individual (WHO, 2001). In this case disability is regarded as the result of society’s discriminatory actions, values and beliefs (Hodkinson, 2016). Addressing this imposed disability is the collective responsibility of society and environmental modifications are needed to enable full participation in all areas of life (WHO, 2001). The social model assumes a positive social identity of people with disabilities (Swain & French, 2000) and demands that adjustments are made to the social context, rather than people with disabilities being expected to change or fit in. Under this model, schools are required to improve the physical, social and attitudinal features of the learning environment so that barriers to education are prevented (Hodkinson, 2016).

### **Social Interactionist Model**

The International Classification of Functioning, Disability and Health (ICF) (WHO, 2001) combined the medical and social models to create a “biopsychosocial” (p. 20) approach that characterises disability as the outcome of interactions between features of a person and features of the environment in which the person lives and functions. In the educational context, this shift in thinking recognises that a student’s academic success or failure is influenced not only by their biological limitations, but also by the curriculum and learning activities as well as the social aspects of the school and classroom (Arduin, 2015; Reindal, 2009). The social interactionist perspective acknowledges that the extrinsic factors of the learning environment can accommodate or exacerbate an individual’s intrinsic impairment (Bottcher & Dammeyer, 2012). Inclusive education, guided by this view, is underpinned by the concept of equity. Educational equity recognises the need to take into account individual differences so that all people can access equal learning opportunities. Under this model, the special educator becomes a facilitator of collaborative practice as well as a source of expertise in building the capacity of general education teachers to modify existing constructs in the social and learning aspects of the class and school environment. The special educator also continues in their role of providing a “certain portion of special education” (UN, 2006, p. 66) to accommodate the unique and special needs of students with disability.

### **Special and Inclusive Education in Australia: From Disability Support to Disability Inclusion**

From the 1950s up until the early 1970s, special education in Australia was primarily based on a medical model, where the focus was on diagnosing and treating a specific disability. Typically, students were educated in segregated special schools or withdrawn from the mainstream classroom for intensive, individualised instruction (Hodkinson, 2016). The role of a special educator was to identify and remediate student deficits (Dudley-Marling & Burns, 2014). In response to the human rights and social justice movements, which emphasised that people with disability should have access to education and other services and life opportunities on the same basis as people without disability, some students with disability began to be integrated into mainstream schools.

The social interactionist model prompted a shift from passive co-location to the active accommodation of the diverse needs of students. With the introduction of the Disability Standards for Education (DSE) in 2005 (Commonwealth of Australia, 2006), and the Australian Government's ratification of the UNCRPD in 2008 (Australian Government Department of Social Services, 2008), Australian states and territories began to implement inclusive educational policies. These policies emphasised modifications and reasonable adjustments to classroom pedagogy so that students with disability could participate in meaningful classroom learning activities with their same aged peers (Busher, 1998). Both social and academic outcomes were considered, with schools expected to promote students sense of belonging and provide them with the support needed to achieve curriculum outcomes (Ashman & Elkins, 2009). In line with the objectives of the DSE (Commonwealth of Australia, 2006) schools were required to remove any barriers that might prevent learning and socialisation, and modify existing educational practices to ensure that all students could access and participate in curricular and extra-curricular activities. Thus, provisions for the education of students with disability have expanded from a model of disability support to a model of disability inclusion.

In Australia, there is no uniform provision of special education services to students with disability and no agreed definition of ‘special’ or ‘inclusive’ education’ or how these should be delivered. Each state or territory relies on its own system of resource allocation and blend of special or inclusive education services and placement options. Each jurisdiction offers full-time enrolment in a mainstream class or enrolment in a segregated school or classroom with a range of special or inclusive services and placement opportunities in between these two extremes (Anderson & Boyle, 2015). Special schools and support classes are usually offered as learning environments for students with moderate, severe and profound disability (if geographically available). The most recent data from the Australian Bureau of Statistics (ABS, 2013) reported that in 2009 one in twelve children in Australian schools had a disability. Most of these children attended regular classes in mainstream schools (65.9%), rather than special classes within mainstream schools (24.3%) or special schools (9.9%).

As a signatory to the UNCRPD (2016), Australian education systems are bound to adhere to inclusive educational processes for students with disability through “continuing and pro-active commitment to eliminate barriers impeding the right to education, together with changes to culture, policy and practice of regular schools to accommodate and effectively include all students” (United Nations, 2016, p. 4). While these principles of inclusion are mandated through national legislation and state policies, some researchers have argued that inclusive education is often interpreted as an ‘education-for-all’ approach and has a broader focus than just disability (Ainscow, Booth, & Dyson, 2006). Cologon (2013) defines inclusive education as “recognising the right of every child (without exception) to be included, and adapting the environment and teaching approaches in order to ensure the valued participation of all children” (p.13). This broad definition encompasses the need for inclusive practices that accommodate students who may be disadvantaged or excluded because of a range of demographic and cultural factors, such as age, ability, gender, ethnic identity and religious affiliation, geographic location, and socioeconomic status (Hayes & Caria, 2019). As argued by Florian (2008, p. 206) there are “educationally important differences” that may be overlooked if the needs of students with disability in mainstream schools are generally discussed within the broader context of other marginalised groups.

In this article we use the term ‘disability inclusive education’ to refer to the spectrum of educational services and teaching practices that pertain to the education of students with disability. This term has gained currency since its adoption by the United States Agency of International Development (Josa & Chassy, 2018) to differentiate the educational needs and outcomes of students with disability from other ‘vulnerable’ populations. “Disability inclusive education recognizes that all children have unique learning strengths and learning needs. It seeks to make changes to the existing education system to allow for children and youth with disabilities to access education on a full and equitable basis with others” (Chassy & Josa, 2018, p. 2). Disability inclusive education thus combines the social interactionist and rights-based approaches through recognising that education systems may need to implement holistic changes to enable the participation and success of all learners, and that these changes should be accompanied by disability-specific supports where these are required. This ‘twin-track approach’ identifies that there is a need for both disability supportive and disability inclusive practices (Chassy & Josa, 2018). We now examine how this dual requirement to support and include students with disability impacts the roles of special and general education teachers in Australia.

## The Roles of Special and General Education Teachers in Australia

The purpose of the one-day symposium convened at the University of Newcastle was to facilitate a dialogue regarding current and future trends in special education research and practice with a particular emphasis on the roles of teachers in the inclusive era. Symposium academics agreed that effective special and inclusive education is supported by shared ‘common’ knowledge and skills required by all teachers and by distinct sets of ‘additional’ knowledge and skills for general and special education teachers. General education teachers will have unique curriculum specific content knowledge and skills, while special education teachers will have additional pedagogical or ‘disability-specific’ knowledge and skills.

Figure 1 captures the important and unique features of special and general education teachers as well as the intersection of the common skills, knowledge and attitudes required to implement effective disability inclusive education. The shaded area of Figure 1 represents the two research priorities identified at the symposium. The first related to the current practice and preparedness of all teachers (including both qualified and preservice teachers) to support the learning and social inclusion of students with disability. The second encompassed the specific skills and knowledge required by special education teachers to support students in special education settings and to support students with disability and their general education teachers in inclusive contexts. These two components of the model are now described, firstly with reference to the intersection of general and special education teachers’ roles in disability inclusive contexts.

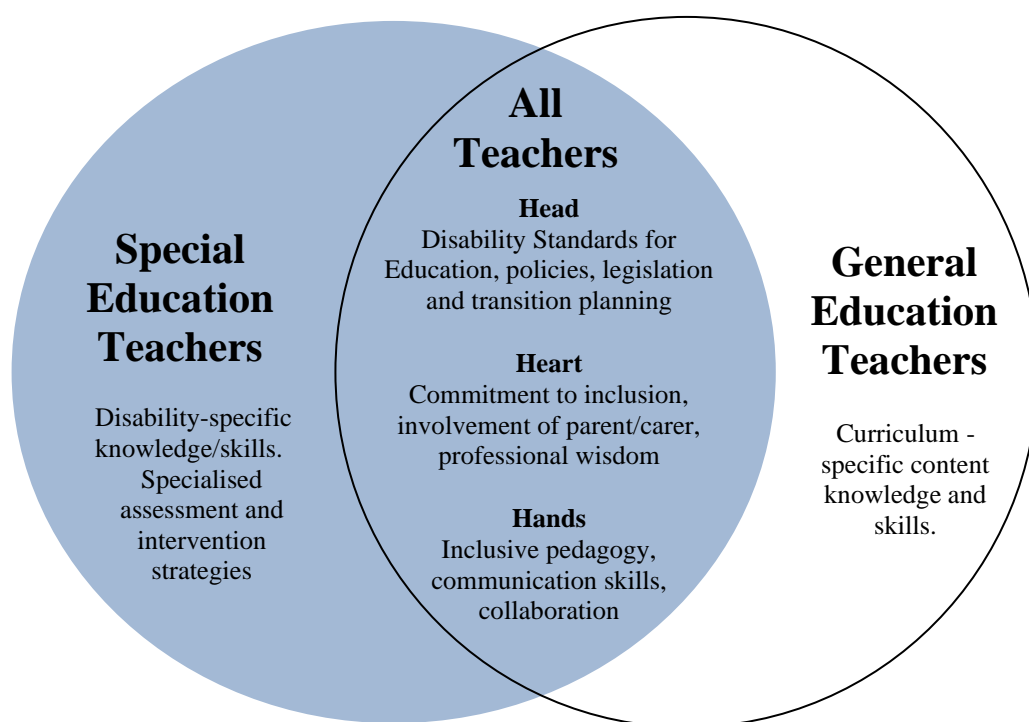


Figure 1. Shared and unique roles of special and general education teachers

### All Teachers

Disability inclusive education is based on the social interactionist model which requires that all teachers are equipped with relevant skills and knowledge to remove barriers to learning and to provide meaningful and accessible curricula. In order for students with disability in inclusive contexts to succeed socially and academically, teachers must also



develop appropriate attitudes and self-efficacy to actively and willingly support the diverse learning needs of all students in their classrooms (Kuzolin, 2014). This in itself is a significant challenge as evidence suggests that not all teachers leave teaching programs with adequate knowledge, skills, attitude and efficacy beliefs (Sharma & Loreman, 2014). The 'Heads, Hearts and Hands' model (Rouse, 2010; Shulman, 2004) depicted in Figure 1 provides a useful framework to prepare both special and mainstream teachers for disability inclusive education. In disability inclusive contexts, both special and general education teachers require: knowledge (*head*) about the relevant legislation and policies governing inclusive practice; commitment (*heart*) to enact the principles of inclusion, such as family involvement; and practical skills and strategies (*hands*) to teach students with disability, as well as the communication and interpersonal skills needed for successful collaboration with families and other professionals.

As previously discussed, disability inclusive education acknowledges that students will have a diverse array of abilities and disabilities and encompasses the expectation that schools will provide a curriculum that is accessible to all and a learning environment that is supportive of every student. Spratt and Florian (2015) use the term 'inclusive pedagogy' to describe teaching approaches that aim to support the unique learning needs of all students in the classroom but in ways that do not exacerbate differences in ability or marginalise groups of students. According to Spratt and Florian (2015), inclusive pedagogy 'requires teachers to make thoughtful choices, underpinned by a sound professional knowledge, to provide opportunities for all to participate in the learning community of the classroom' (p. 96). Inclusive pedagogy embraces approaches which foster acceptance of diverse ability levels and which focus on students' strengths to inform teaching practice.

The successful implementation of disability inclusive education depends not only on developing teachers' knowledge and skills in inclusive teaching practices but also on fostering teachers' beliefs about the influence of the learning context and attitudes towards student's learning potential. Teachers who understand the social interactionist model of disability, accept that learning is influenced by a dynamic interaction between the capacity of the learner and the sociocultural context of the classroom. Teachers with these beliefs will strive to differentiate their lessons and ensure the curriculum content is accessible and engaging for all students regardless of ability level (Forlin & Chambers, 2017). Similarly, teachers who hold the view that learning potential is not fixed by innate factors such as intelligence, are more likely to believe in their own efficacy to make a positive difference to the academic and social outcomes of every student in their class (Kuzolin, 2014). Shulman (1986) identified that a teachers' content knowledge alone was inadequate to ensure students' achieve their learning potential and that it is not just what a teacher knows, but what a teacher does and believes, that has a major influence on how students learn. Shulman (1986) proposed that along with knowledge of their subject matter and understanding of the unique characteristics of their learners, teachers must be guided by the philosophical and historical purposes and values of education. Thus, teachers who adhere to the principles of educational equity and inclusion are more likely to develop what Shulman (1986) calls the *professional wisdom* or *pedagogical content knowledge* that effective teachers use to identify students' difficulties in learning and to design and deliver classroom activities that make essential curricula accessible to all students.

Rouse (2009) asserts that teacher professional development for inclusion should target the application of theory and legislation to practice (knowing and doing) as well as promote positive attitudes towards inclusion and building teachers' competence and confidence (belief) in their capacity to teach students with disability. Developing teachers' understanding of the emotional stress that is experienced by many families as they strive to care for children with disability and acquiring the interpersonal skills needed to work collaboratively with

families and other professionals and paraprofessionals have also been identified as critical elements in the provision of optimal learning environments for students with disability (Chambers, 2015; Hornby, 2011; Strnadová & Evans, 2007).

### **Special Education Teachers**

Regardless of whether students with disability are being educated in inclusive or special education settings, there is a general consensus among educators and researchers that there is a specific and unique set of skills that define the work of a ‘special’ education teacher (Cook, Tankersley, & Landrum, 2009). These skills are underpinned by a deep and comprehensive understanding of the diverse and complex needs of children with disability and knowledge of effective instructional and behavioural interventions to support students’ academic and social development (McLeskey et al., 2017).

In the US, the Council for Exceptional Children (CEC) recently released a report describing ‘High Leverage Practices (HLP) in Special Education’ (McLeskey et al., 2017). The report identifies four main aspects of effective special education teacher practice including instruction, assessment, social-emotional-behavioural practices and collaboration. Instructional practices comprise the largest group and encompass skills such as goal-setting and systematically designing instruction and adapting curriculum tasks and materials to assist students to achieve their learning goals. Special education teachers should be competent in designing and delivering explicit and intensive instruction, providing engaging activities and scaffolded support, and generating positive and constructive feedback that helps students maintain and generalise new learning over time and across settings. Effective assessment practices include using multiple sources of information to develop understanding of a student’s strengths and needs as well as interpreting and communicating assessment data to make adjustments or collaboratively design and implement educational programs. Practices related to supporting students’ social/emotional/behavioural development comprise establishing a consistent and respectful learning environment, using functional behavioural assessments to develop positive behaviour support plans and explicitly teaching and reinforcing social skills. Collaborative competency is demonstrated by organising and facilitating effective meetings with families and professionals and working in partnership with families and professionals to secure needed services and increase student success (McLeskey et al., 2017).

### **Australian Special and Inclusive Education Research Priorities**

We concur with Grima-Farrell, Bain, and McDonagh (2011, p. 118), that “Inclusive education represents a whole-school concern and works to align special education with general education in a manner that most effectively and efficiently imparts quality education to all students”. Our model of the roles of special and general education teachers presents a unified view of how the unique and shared skills of special and mainstream teachers provide educational opportunities in Australian schools that are disability supportive and disability inclusive. Given that the majority of children with disability in Australia are now being educated in mainstream schools (ABS, 2013), it is important that professional learning in disability inclusive education for both pre-service and practising general education teachers will have a demonstrated positive impact on student outcomes (McMillan et al., 2018). We posit that interpersonal and collaboration skills could be a valuable focus of professional learning for general education teachers and suggest this as our first research priority.

While we are clearly advocating for the need to effectively prepare general education teachers for disability inclusive education, like Kauffman, Schumaker, Badar, and Hallenbeck (2018) we are also concerned about the future recognition of the role of special education teachers in an era where special education research and practice is dominated by discourse on inclusion. As encapsulated in the social interactionist model, in order to reduce barriers to learning and social inclusion and to provide educational experiences that support student learning and participation, it is important to understand how an individual's functioning is affected by a specific impairment or disorder. We suggest, as a second research priority, that there is a need to develop specific professional standards for special education teachers to more clearly define and articulate the skills and knowledge required by special education teachers to equip them to work effectively in either special or inclusive education contexts. Each of these priorities are described below.

### **Teacher Preparation for Professional Collaboration**

Teachers are required to work with a wide range of professionals across many areas of schooling. In inclusive settings, in particular, teachers work alongside therapists (e.g. occupational, physical, speech), psychologists/psychiatrists, special education consultants, co-teachers, teacher clusters, administrators, families and education assistants to assist students to access an inclusive environment and curriculum. Walther-Thomas, Korinek, McLaughlin, and Toler Williams (2000) state that school communities should work together to provide inclusive environments for all students. Cooper, Kurtts, Baber, and Vallecorsa (2008) even suggest that collaborative skills are one of five key competencies required for inclusive education.

Professional collaboration amongst teachers, support staff, administrators and other professionals within an inclusive setting is a necessary, but frequently difficult and frustrating experience for classroom teachers (Chambers, 2015; De Fonte & Capizzi, 2015). Training in the area of professional collaboration is vital for teachers to fully realise the potential of their students and to reduce the stress that may be experienced during collaborative attempts (Pülschen & Pülschen, 2015). Preparation of teachers for professional collaboration should, therefore, be seen as an obvious and important component of their training, which includes frequent reflection, feedback and building of professional networks (Hardman, 2015).

Teacher preparation, however, has not always been effective in preparing preservice or in-service teachers to work with others in the classroom (McKenzie, 2009; Weiss, Pellegrino, & Brigham, 2017). Collaboration is often infused across the curriculum or training, rather than taught in an explicit manner (Griffin, Jones, & Kilgore, 2006). In addition, there may be a disconnect between programs for general education and special education teachers, where a greater emphasis is provided in special education courses on professional collaboration (although the content may still be insufficient), while there is minimal treatment given to collaboration in general education courses (Griffin et al., 2006). In teacher preparation programs there have been a number of methods reported to address the need for professional collaboration in the classroom, including field/immersion experiences (Bentley-Williams, Grima-Farrell, Long, & Laws, 2017; McKenzie, 2009); guided examination of environment (Stein, 2011); and courses explicitly focused on professional collaboration (Pellegrino & Weiss, 2017).

It is not clear how the content that might be addressed in teacher preparation programs would be identified, nor how preservice teachers might engage with that content. While there are several examples of preservice teacher education programs providing opportunities for practising professional collaboration (e.g., Arthaud, Aram, Breck, Doelling, & Bushrow,

2007), there is limited literature regarding the specific instruction of collaborative skills. The term ‘soft skills’, however, and the training of those skills, does emerge in the literature of business and business communication (e.g., McCale, 2008; Charoensap-Kelly, Broussard, Lindsly, & Troy, 2016). ‘Soft skills’, in this context, refers to the communication and interpersonal skills that the educational literature on professional collaboration identifies as being of critical importance. Further exploration of the approaches taken to develop these skills in domains other than education may prove a valuable guide to teacher preparation for professional collaboration.

As professional collaboration is a multi-directional process, it can be argued that preparation for collaboration needs to be extended to other professionals besides teachers. A good example of why this is needed is the issue of effective collaboration between teachers and teaching assistants. As highlighted by Němec, Šimáčková-Laurenčíková, Hájková, and Strnadová (2015), teaching assistants are important in the inclusion of students with disability, yet their involvement in this process is not always optimal. As noted by Giangreco (2010), teaching assistants tend to be used as “the key provision” for students with disability, working with them on one-to-one basis. Education for teachers on how to collaborate with teaching assistants in the most effective manner, as well as education of teaching assistants in collaboration skills and inclusive teaching practice is essential, yet often missing. Another example is collaboration between teachers and families. While collaboration between teachers and families tends to be a curricular component of teacher education, teachers continue to feel unprepared to work in partnership with families (Evans, 2013). As highlighted by Evans (2013), teachers are working in an increasingly globalised world, thus their understanding of families from different cultural contexts is crucial. Home-school partnerships are of course bi-directional. Families also need to gain an understanding of a schooling context, in which teachers operate. Preparation of families to collaborate with teachers is, however, under-researched, and very limited, if non-existent on a systematic level.

There are a number of collaborative elements that have been identified as being vital to professional collaboration, including: knowing each parties’ professional characteristics and strengths, having a sound communication style (interpersonal skills), sharing accountability for decisions made, and developing a positive working relationship (Suc, Bukovec, & Karpljuk, 2017). All those involved in collaboration should expect to develop new practices as needed in order to solve problems as they arise. Villeneuve and Hutchinson (2012) identify a number of barriers to collaboration such as poor time availability, limited opportunity to meet, and lack of accountability for practices. Incorporating training in professional collaboration skills as an integral part of both special and general education teacher preparation programs has the potential to make a difference to the inclusion of children with disability. Whether teachers are in an inclusive or special education setting, professional collaboration with families and a range of specialists and key stakeholders will ensure the student’s needs will be at the forefront of any educational approach.

### **Professional Standards for Special Education Teachers**

The second research priority identified at the symposium was the need to develop professional standards that specifically describe the unique knowledge and skills required by teachers who specialise in supporting students with disability. Currently, there is only one set of professional standards for all teachers. These standards were developed by the Australian Institute for Teaching and School Leadership (AITSL, 2015). Within each standard, descriptor statements are provided for the four career stages of Graduate, Proficient, Highly

Accomplished and Lead teachers. The standards comprise seven professional standards elaborated by statements which outline what all Australian teachers should know and be able to do in order to achieve optimal educational outcomes for all students.

Carrington et al. (2015) conducted a critical discourse analysis of the Australian Professional Standards for Teachers (AITSL, 2015) at each of the four career levels to examine how the standards communicate an expectation of inclusive educational practice to teachers. These authors found frequent use of words and phrases related to making adjustments and modifications and improving opportunities for all students to learn within an inclusive environment. Carrington et al. noted that there was an expectation for teachers to be aware of and responsive to the diverse backgrounds and cultural contexts of their students and to aim for high standards of achievement (including social outcomes) for heterogeneous groups of students. The authors concluded that the Australian Professional Standards for Teachers are underpinned by the principles and pedagogies of inclusion and promote an expectation of 'curriculum for all and respect for a diversity of learners' (p.568). This representation reflects inclusive beliefs and values which acknowledge the educability of all students (Skidmore, 2002) and attributes student success or failure to the design and delivery of the class learning activities and the quality of teacher/student relationships (Alton-Lee, 2003).

While the current general teacher standards appear to adhere to a broad interpretation of inclusive education, Dally and Dempsey (2015) have argued that there is a need for an additional set of standards that specifically describe the knowledge and skills required by special education teachers. These authors cite growing concerns in Australia about both the number of qualified special education staff and the inconsistent pathways to special education teacher training that has coincided with increasing numbers of Australian children with disability included in mainstream schools. Developing standards for Australian special education teachers demands consideration of the diversity of roles these teachers play, the variation among the settings in which they work, and the broad range of students' needs and abilities. Such teachers continue to work in special schools, in separate support classes in mainstream schools, and in mainstream classrooms. Special education teachers may be appointed to work with students with additional needs ranging from learning difficulties, to diagnosed disability, and to behavioural problems and emotional disturbance. Furthermore, special education teachers are expected to regularly interact with a wide range of interested parties including parents and caregivers, colleague teachers, and outside specialists.

The scope of the Australian Professional Standards for Teachers as they specifically relate to students with disability is limited, and the standards do not address the diverse roles taken by special education teachers across both inclusive and segregated settings. Similar to the recently published elaborations of the Australian Professional Standards for Teachers of the Deaf (National Association of Australian Teachers of the Deaf, 2016), the development of separate standards or elaborations of the current standards is needed to document the specific skills and knowledge required by special education teachers.

## Conclusions

We commenced this article with the observation that, over the past two decades and in line with the increasing enrolment of students with disability in mainstream schools, the focus of special education research has shifted to inclusive education principles and practices. A review of the historical models underpinning, first special and then inclusive, education revealed that the 'deficit' view of disability inherent in the medical model has been replaced by the social interactionist model which recognises the impact of the school and classroom

environment on the learning outcomes of students with disability. Cognisant of the inclusive orientation of Australian educational policies and state initiatives, we developed a model outlining the common and unique sets of skills and knowledge required by general and special education teachers. While some might argue that the principles of special education are diametrically opposed to those of inclusive education our model concurs with Hornby's (2015) view that the two approaches can be integrated to ensure that effective education is provided for students with disability wherever they are educated.

In order for the effective implementation of inclusive education in Australia, we need a general education teacher workforce that is equipped with the requisite skills, knowledge, attitudes and efficacy to support students with disability. An international review of teacher education programs has suggested that most universities tend to focus on the "head" aspects of inclusive education (i.e., provide information about what and how to teach children with disability or additional needs); but fail to prepare teachers with the "heart" and "hands" of inclusion (Sharma, Forlin, Deppeler, & Yang, 2013). It is, therefore, not surprising that many general education teachers graduating from universities are not fully equipped to effectively teach students with disability. In order to improve the quality of teacher preparation, it is critical that teacher education programs systematically address the 'heart' of what is required to effectively teach students with diverse abilities (Shulman, 1986). In order to accommodate ability differences and facilitate student learning, teachers need both content pedagogical knowledge and understanding of the principles of equity and equality that underpin the social interactionist model of disability inclusive education. It is also important to support all teachers to acquire the interpersonal and organisational skills required to collaborate with families and other professionals in the design and delivery of high-quality instruction and intervention plans.

In accord with the biological basis inherent in the biopsychosocial view of disability (WHO, 2001), it is important to not lose sight of the disability specific knowledge that special education teachers bring to their work in both special and inclusive settings. A clear articulation of professional standards for Australian special education teachers will inform teacher practice and professional learning goals and ultimately improve the effectiveness of special education teachers to support the work of their mainstream colleagues and the learning and social inclusion of students with disability across a range of educational settings. Special education research and practice should not and cannot be totally subsumed within the inclusive education agenda. The promise of 'education for all' can best be achieved through valuing and developing the unique and complementary skills of both special and general education teachers.

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