

# Teacher Assistant Supports in Inclusive Schools: Research, Practices and Alternatives

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In this article, I summarise the primary content included in a keynote address I delivered via videoconferencing in July 2012 at the national conference of the *Australian Association of Special Education*, held jointly with the annual conference of the *Tasmanian Principals Association* in Hobart, Tasmania. The address focused on three major topics pertaining to the utilisation of teacher assistants in inclusive schools: (a) persistent and emerging research trends, (b) contemporary conceptual and data-based concerns, and (c) ideas about what schools can do to provide improved educational opportunities and supports for students with special educational needs in inclusive classrooms. The article concludes that the potential overuse or misuse of teacher assistants is a symptom, not cause. Building integrated models of general and special service delivery in schools can address the challenges associated with questionable teacher assistant utilisation.

**Keywords:** inclusive education, service delivery, teacher assistants, paraprofessionals

In July 2012 the *Australian Association of Special Education* held its national conference jointly with the *Tasmanian Principals Association* in Hobart, Tasmania. In this article, I summarise some of the primary content from a keynote speech I presented via videoconferencing during that event. The address focused on three major aspects related to utilising teacher assistants in inclusive schools: (a) persistent and emerging research trends, (b) contemporary conceptual and data-based concerns, and (c) ideas about what schools can do to provide improved educational opportunities and supports for students with special educational needs in inclusive classrooms without excessive or inappropriate overreliance on teacher assistants. Before proceeding further, I would like to clarify three foundational points related to (a) cross-cultural comparisons, (b) terminology, and (c) the locus of responsibility for change that will have an impact on interpreting the remaining content.

As an American writing to an international audience, I am keenly aware of my limited knowledge and understanding of the legislation, educational policies, and cultural influences that have shaped current Australian special education. It is with the realisation that cross-cultural comparisons can be fraught with complications (D'Alessio & Watkins, 2009) that I encourage the reader to take into account that

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the points summarised in the following pages are based primarily on research and practices in the United States (US) and to a lesser extent other western countries. Since recent literature suggests that Australia encounters many of the same issues as the US pertaining to teacher assistants (Australian Association of Special Education, 2007; Bourke, 2009; Bourke & Carrington, 2007; Butt & Lowe, 2012; Howard & Ford, 2007; Shaddock, Nielsen, Giorcelli, Kilham, & Hoffman-Raap, 2007), I am relying on the reader to determine relevant connections between the presented information and their potential implications in Australian schools or those in other countries.

Second, the international literature refers to personnel who help teachers by a wide range of terminology (e.g., teacher aides, paraprofessionals, paraeducators, learning support assistants). Throughout this article the term *teacher assistant* (rather than *teaching assistant*) is used because in all the cases we have identified around the world these individuals always *assist teachers*, although not exclusively or necessarily with *teaching* (Giangreco & Doyle, 2007; Giangreco, Doyle, & Suter, in press).

Third, the content presented in the following sections raise concerns about some current practices as conceptually and educationally unsound, or, at best, questionable. While I do intend to challenge the appropriateness and value of some current practices associated with teacher assistant utilisation, my message should not be construed as (a) blaming teacher assistants for our current predicaments, (b) calling for a reduction in their numbers without putting in place thoughtful alternatives that are supportive to students and service providers, or (c) suggesting that changes associated with their utilisation are primarily their responsibility. To the contrary, teacher assistants are not at fault or responsible for existing shortfalls in school service delivery; that responsibility lies collectively with those who are accountable for ensuring appropriate education for all students (e.g., government education officials, community school board members, school administrators, special educators, teachers). Like nearly everyone who has worked in special education, I recognise the many contributions that teacher assistants can and do make in our schools when they are deployed wisely. The overarching problem suggested in the professional literature (Giangreco, 2010; Giangreco, Edelman, Broer, & Doyle, 2001; Giangreco, Suter, & Doyle, 2010; Rutherford, 2012; Webster et al., 2010) is that too often teacher assistants are not used wisely in inclusive classrooms, but rather metaphorically as a bandaid for an injury that at the least requires stiches and possibly major surgery; no bandaid, regardless of size or type, will meet the need.

### *Persistent and Emerging Research Trends*

Internationally, the utilisation of teacher assistants to support the education of students with disabilities has reportedly increased in several western countries (e.g., Australia, Canada, Finland, Germany, Iceland, Ireland, Malta, United Kingdom [UK], US; Blatchford et al., 2011; Bourke, 2009; Giangreco & Doyle, 2007; Giangreco et al., in press; Logan, 2006). Reliance on teacher assistants is considered by many a necessary mechanism to support inclusive education. Problematically, teacher assistants have become almost exclusively *the way*, rather than *a way*, to support students with disabilities in general education classrooms, especially those with severe or low-incidence disabilities (e.g., autism, intellectual disabilities, behaviour disorders, multiple disabilities; Giangreco & Broer, 2007).

Although US states that include the highest percentage of their students with disabilities in general education classrooms tend to rely more on teacher assistants (Giangreco, Hurley, & Suter, 2009), a closer look at one state highlights an interesting phenomenon (Giangreco, Smith, & Pinckney, 2006). Vermont is a northeastern state with a long history of inclusive educational reforms and efforts. Throughout the 1990s, Vermont's placement

of students with disabilities (ages 6–21) in general education classes (at least 80% of the time) fluctuated annually between approximately 82% and 88%. By 2004, the percentage of students with disabilities in Vermont who were placed in general education had declined to 76.54% (and dropped to as low as 70% in 2007 and 2008). During this time, the number of special education teacher assistants in Vermont rose from 1186 to as high as 3462 in 2005. When adjusted to account for changes in population, the ratio of special education teacher assistants to students receiving special education in Vermont had changed from approximately 1:9 to 1:4 during that period. It is notable that para-professional utilisation in Vermont has steadily risen despite the fact that the percentage of students with disabilities included in general education classes has declined by nearly 20 percentage points from its historic high point; therefore inclusion of students with disabilities does not explain the substantial increase in teacher assistant utilisation.

While teacher assistants engage in a wide variety of duties (e.g., clerical, personal care, social/behavioural support, supervision of students), their roles have become increasingly instructional over time (Carter, O'Rourke, Sisco, & Pelsue, 2009; Fisher & Pleasants, 2012; Giangreco & Broer, 2005; Groom & Rose, 2005; Riggs & Mueller 2001). Current literature suggests that when teacher assistants are utilised to support instruction a basic set of foundational practices should be in place (Causton-Theoharis, Giangreco, Doyle, & Vadasy, 2007). First, any potential instruction provided by teacher assistants should be supplemental, not primary or exclusive. Second, teacher assistants should be working from professionally prepared plans developed by teachers or special educators based on evidence-based approaches, thus not putting teacher assistants in the inappropriate role of making pedagogical decisions. Third, teacher assistants should be trained to implement these teacher-developed plans with procedural fidelity. Fourth, teacher assistants should be trained to constructively manage and respond to challenging student behaviours that might arise during instruction. Fifth, teacher assistants should receive ongoing monitoring and supervision from qualified professionals — not be left to fend for themselves. In addition to supplemental instructional roles, teacher assistants can undertake valuable noninstructional roles that allow teachers and special educators more time to work directly with students and collaborate with each other.

While these practices seem logical and desirable, the literature repeatedly suggests that they are the exception rather than the norm (Giangreco, Suter, & Doyle, 2010; Rutherford, 2011; Webster et al., 2010). There are mixed research findings about the success of training teacher assistants. Some recent research reports that teacher assistants can be effectively trained to undertake a variety of academic and social tasks that result in positive student outcomes (Bingham, Spooner, Browder, 2007; Causton-Theoharis & Malmgren, 2005; Devlin, 2005; Malmgren, Causton-Theoharis, & Trezek, 2005; McDonnell, Johnson, Polychronis, & Risen, 2002; Quilty, 2007). Yet other observations of teacher assistants involved in instruction suggest that they may have difficulty implementing interventions with fidelity (Tompkins et al., 2012) and are prone to engaging in instructionally unhelpful behaviours (e.g., offering inaccurate or confusing information or correction, supplying answers, more focused on task completion than conceptual understanding; Rubie-Davies, Blatchford, Webster, Koutsoubou, & Bassett, 2010). A key overall finding from a large-scale, longitudinal study in the UK (Blatchford, Russell, & Webster, 2011; Webster et al., 2010) reported consistently negative relationships between the amount of support from teacher assistants and pupils' academic progress (i.e., English, maths, science) that was not accounted for by pupil characteristics (e.g., special educational needs status). As stated at the outset, this is not meant to blame teacher assistants; they are not trained teachers and should not be expected to function interchangeably as if they were teachers.

From the 1970s to the present day, a series of longstanding issues have been persistently reported in the professional literature. Chief among these include (a) the need to improve working conditions (e.g., pay, perceived respect, orientation, career ladders); (b) lack of role clarity; (c) inadequate skill levels and training commensurate with identified roles; and (d) inadequate supervision (French, 2001; Ghore & York-Barr, 2007; Giangreco, Suter, & Doyle, 2010; Tillery, Werts, Roark, & Harris, 2003; Wallace, Shin, Bartholomay, & Stahl, 2001). Although not stated explicitly, the persistent focus on these topics seems to infer that if we just treated teacher assistants better, clarified their roles, and provided appropriate training and supervision, many problems would be solved. While these are all worthy aims, a closer analysis suggests that they may be necessary but not sufficient actions to support students with special educational needs in inclusive settings.

Well-intended training of teacher assistants can inadvertently lead to a ‘training trap’ (Giangreco, 2003, p. 51). This occurs when professionals unadvisedly relinquish ever more instructional responsibility for students with disabilities to teacher assistants based on those assistants receiving virtually any, even a scant, amount or level of training and then reasoning, ‘Now they are trained!’ In a conceptual analysis of teacher assistant instructional roles, Giangreco and Broer (2003) described six possible scenarios for their utilisation as a ‘conundrum’ (p. 3), because whichever path is chosen represents a different type of problem:

1. Teacher assistants report *ambivalence or feeling exploited* when asked to do teacher-type work for substantially lower compensation.
2. It can be *inconsistent with education laws* and regulations (not to mention ethical practices) if inadequately trained or underqualified personnel are allowed to instruct students.
3. Teacher assistants report feeling *disrespected* if their capabilities are not recognised and utilised, potentially leading to low morale and turnover.
4. Teacher assistants, especially those who have a college or university degree or who are certified teachers functioning in assistant roles, report feeling *frustrated* if they are not expected or allowed to engage in higher-level duties, such as instructing students.
5. As schools scrutinise costs, they typically do not want to pay higher than traditional wages unless an employee is engaging in higher-level duties. So some schools consider it to be *ineffective budgeting of resources* to pay teacher assistants more without evidence that assigning them higher-level duties is resulting in better student outcomes or other benefits.
6. If schools extend teacher assistant models by providing more extensive training and paying them commensurately more for engaging in higher-level instructional duties, it may result in *questionable personnel utilisation*. As the gap between teacher assistant and special education teacher compensation decreases, at what point does it make more sense to simply hire additional fully qualified teachers or special educators?

A series of studies in the US have highlighted an emerging set of key school and special education service delivery variables that are closely interrelated with, and contribute to, the conundrum scenarios previously mentioned (Giangreco & Broer, 2005, 2007; Giangreco, Broer, & Suter, 2011; Giangreco et al., 2009; Giangreco, Suter, & Hurley, 2011). For example, research in inclusive schools indicates that teacher assistants are increasingly being assigned in a one-to-one format to students who have disabilities; approximately half of all special education teacher assistants in sampled schools in Vermont are assigned

one to one. On average, special educators (a) spend a smaller percentage of their time in instruction than do the teacher assistants they supervise, (b) spend about three-quarters of their instructional time outside the general classroom in homogeneous (special needs students only) pullout service provision, and (c) provide only about 2% of their time to each of the teacher assistants they are assigned to supervise. In the US, about half the states employ more special education teachers than teacher assistants. But many of states that include a higher percentage of students with disabilities in general education classes have more teacher assistants than special education teachers, often 1.5 to 2.5 times as many. Within a relatively more inclusive state like Vermont, nearly all of the schools employ more teacher assistants than special education teachers — on average more than 3 times as many. It is not unusual to find schools with 5 to 8 times as many teacher assistants as special education teachers. Each of these data points, and others to be shared in the subsequent section, represent persistent and emerging challenges to providing effective supports for students with the full range of disabilities within general education classrooms.

### *Contemporary Conceptual and Data-Based Concerns*

Metaphorically, teacher assistant issues (e.g., burgeoning numbers, appropriate roles, training needs, supervision) might be considered like the *tip of an iceberg* (Giangreco, Broer, & Edelman, 1999); it is the relatively small, visible part that can be seen above the waterline. This is not the piece of the iceberg that should be considered worrisome. It is what that tip is connected to, namely it is the more difficult to see vast bulk of the iceberg below the surface that has the potential to sink the ship. The bulk below the surface represents the large number of interrelated organisational and practice issues that may lead schools to become inappropriately overreliant on teacher assistants (e.g., class size, teaching formats, caseload size and parameters, staffing ratios, inadequate collaboration and coordination between general and special education, team member roles, insufficient teacher engagement with students who have disabilities). This section highlights a few key conceptual and data-based concerns facing students, their families, and service providers.

### *Least Qualified Personnel*

One of those most fundamental conceptual and practical problems associated with the heavy reliance on teacher assistants to support the academic and social needs of students with disabilities is the simple truth that we are assigning the least qualified personnel to students who present the most complex learning challenges (Brown, Farrington, Knight, Ross, & Ziegler, 1999; Rutherford, 2011). Data from schools in Vermont indicates that special education teacher assistants deliver more than three-quarters of special education instruction, with less than a quarter by special education teachers or other related professionals, such as speech-language pathologists (Giangreco, Suter, & Hurley, 2011; Suter & Giangreco, 2009). This phenomenon is readily explained by the facts that (a) there are many more teacher assistants than special education teachers, and (b) on average the assistants spend a greater percentage of their time in instruction. Nearly 70% of these teacher assistants have reported that they make curricular and instructional decisions without professional oversight (Giangreco & Broer, 2005). This is not surprising, given the small amount of available supervision they receive, and further highlights the interrelatedness of multiple service delivery variables on practice. Not only do such approaches defy logic that typically would be applied to students without disabilities, it presents serious equity concerns for students with disabilities, and calls into question whether such assignment

reflects the devalued status of some students with disabilities disguised in a cloak of helping.

### *Excessive Proximity*

Descriptive research has documented that the seemingly well-intended assignment and excessive proximity of a teacher assistant to a student with a disability can lead to a wide range of inadvertent detrimental effects such as (a) separation from classmates, (b) unnecessary dependencies, (c) interference with teacher engagement, (d) interference with peer interactions, (e) insular relationships between students and teacher assistants, (f) stigmatisation, (g) limited access to competent instruction, (h) loss of personal control by students with disabilities, (i) loss of gender identity, and (j) risk of being bullied (Broer, Doyle, & Giangreco, 2005; Carter, Sisco, Brown, Brickham, & Al-Khabbaz, 2008; Giangreco, 2010; Giangreco, Boer, & Edelman, 2001; Giangreco, Edelman, Luiselli, & MacFarland, 1997; Hemmingsson, Borell, & Gustavsson, 2003; Malmgren & Causton-Theoharis, 2006; Marks, Schrader, & Levine, 1999; Skär & Tamm, 2001). Over 46% of teacher assistants in one study indicated that some of their students with disabilities communicated, via their language or behaviour, that they find supports provided by assistants to be unwanted (Giangreco & Broer, 2005). Even the small set of studies that have reported positive or mixed results about the close proximity of teacher assistants (Tews & Lupart, 2008; Werts, Zigmond, & Leeper, 2001; Young, Simpson, Myles, & Kamps, 1997) have acknowledged concerns such as interference with peer interactions and dependence.

### *Special Educator Caseload Challenges*

Given the international shift away from self-contained special classes toward placement of students with a full range of disabilities in regular education classes, the roles of special educators have changed and expanded (Giangreco, Carter, Doyle, & Suter, 2010; Giangreco, Suter, & Graf, 2011). Simultaneously, service delivery models that effectively incorporate special education supports within general education classes have not necessarily kept pace, resulting in some cases of less than optimal use of resources and potentially inadequate support for both students and teachers. The response to these challenges should not be to revert to special classes, but rather to adjust service delivery practices and personnel utilisation to match more inclusive educational contexts. Since special educators represent a key mechanism to operationalise increasingly inclusive educational opportunities for students with disabilities, better understanding of their roles, caseloads, and working conditions is vital to improving services.

The responsibilities of special educators working in general education classrooms have extended beyond direct instruction of students with disabilities to also include consultative and co-teaching roles. Instead of being based in a separate classroom, many contemporary special educators are on the move, spending varying amounts of their time in multiple general education classrooms. In part, this means (a) the number of teachers with whom they collaborate has increased, (b) depending on the range of grades they cover so has the breadth of general education curriculum they must be prepared to support, and (c) their availability to supervise the work of teacher assistants has been decreased.

Additionally, with contemporary initiatives such as response to instruction (RTI), special educators are increasingly being asked to proactively provide instructional supports for students with special educational needs or those who are considered at risk in an effort to assist them without needing to be identified as having a disability (Council for Exceptional Children, 2008). In the Vermont schools studied, special educators not only

served students with identified disabilities who were eligible for special education, but also students with disabilities who did not meet eligibility criteria to receive special education, as well as at-risk students (Giangreco, Suter, & Hurley, 2011; Suter & Giangreco, 2009). In some schools the combined number of students served by special educators rivalled or, in some cases, exceeded the average number of students without disability in regular classes. Additionally, many special educators reported engaging in high rates of pullout services (e.g., approximately 75% of special educator instructional time; Giangreco et al., 2011). This may be a response to current mismatches between special educator caseload parameters and the general absence of purposefully designed inclusive service delivery models.

Historically, US schools have based the availability of special education teachers on the number of students with disabilities identified as eligible for special education. While this approach seems logical, its underlying premise is rooted in earlier self-contained special models of service delivery. Recent research has encouraged more inclusion-oriented schools to base their availability of special educators on total school enrolment by using a simple measure referred to as *special educator school density*, namely a school's ratio of full-time equivalent special educators to total school enrolment (Suter & Giangreco, 2009; Giangreco et al., 2011). Special educator school density has been identified as one of the only school-level variables correlated with special educator self-efficacy ratings (Giangreco et al., 2011). It is an easy-to-calculate variable and can allow for between-school and even international comparisons among those that use some form of special educator role. Furthermore, it also provides a more complete understanding of service delivery than relying exclusively on average special educator caseload size.

The studies referred to here include examples of schools with nearly identical (a) average caseload sizes for their special educators of students eligible for special education (i.e., 11.5 students), and (b) total numbers of students with various special needs designations (i.e., at-risk, students with disability; 26%–28%). Yet these schools had widely different special educator school density ratios (e.g., 1:69 vs. 1:131); this is accounted for by the varying percentages of students who were specifically identified as having a disability and eligible for special education (i.e., 8.8% vs. 18.5%). This highlights the concern that when schools rely on counting students in just one category of special educational needs to determine staffing it can have unintended consequences — so school leaders are encouraged to consider the total enrolment of the school when making special education staffing decisions. This can discourage unnecessary labelling of students as having a disability and may allow schools to project and maintain more stable and predictable staffing over time. To date, there is insufficient research to help guide decisions about special educator caseload parameters and deployment in inclusive schools; this remains an issue of great importance and immediate need.

### *Double Standards: Would It Be OK?*

An overarching conceptual concern about how schools utilise teacher assistants is whether their deployment, though well intended, actually represents serious inequities and double standards that would not be considered appropriate if applied to students without disability or special needs labels (Giangreco, 2003; Webster et al., 2010). For example, some students (particularly those with severe or low-incidence disabilities) receive the majority of their instruction from teacher assistants rather than from qualified teachers and special educators. At progress reporting time, it is not uncommon for teachers and special educators to ask the teacher assistant about a student's educational performance because the

assistant is more knowledgeable about the student's educational progress than the professional educators. Some students with disabilities are provided with extra tutorial support from teacher assistants who acknowledge that they are unskilled and/or uncomfortable in the subject matter being supported. These are just a few examples of common practices that if they were applied to students without disabilities would undoubtedly be considered unacceptable and should be considered unacceptable for students with disabilities. So a simple question can be asked about almost any practice to assist in judging its equity and appropriateness: 'Would it be OK if the student did not have a disability?' (Giangreco, 2003, p. 53).

### *What Schools Can Do*

School personnel have the capacity and responsibility to address teacher assistant issues in constructive ways; this requires both leadership and collaboration that engages multiple constituencies within the school community (e.g., teachers, special educators, parents, students, administrators, community members, teachers assistants). Significant change typically requires a sustained multi-year effort aligned with overall school improvement efforts. In reference to teacher assistant issues, improvement may be facilitated via a simultaneous, three-pronged, approach: (a) using existing teacher assistant supports wisely, (b) rethinking decision-making about teacher assistant supports, and (c) identifying and pursuing alternatives to overreliance on teacher assistants.

### *Using Existing Teacher Assistant Supports Wisely*

An initial step schools can take is to use their existing teacher assistant supports more wisely. Research on schoolwide planning to improve teacher assistant supports has focused on six longstanding categories: (a) acknowledging and demonstrating respect for teacher assistants; (b) initial orientation and ongoing training at the school, classroom and individual student levels; (c) hiring and assigning; (d) appropriate interactions with students and staff; (e) appropriate roles and responsibilities; and (f) supervision and evaluation. In a study including 46 schools in 13 states in the US, teams used a planning process to identify and address concerns in the aforementioned categories (Giangreco, Edelman, & Broer, 2003). Schools reported a variety of positive impacts on both adults (e.g., role clarification, higher morale, retention of personnel, home-school collaboration) and students (e.g., academic achievement, better behaviour and safety, more inclusion in regular classes, more peer engagement).

Although most schools are aware of the need to address these longstanding issues, far fewer deliberately address them in a comprehensive manner that aligns with overall school improvement efforts. Even those that do address these issues with relative effectiveness do not necessarily address the other two prongs (i.e., rethinking decision-making, alternatives to overreliance on teacher assistants). Utilising existing teacher assistant resources more wisely is necessary, but not sufficient to achieve substantial change that benefits both students with and without special educational needs.

### *Rethinking Decision-Making*

In the absence of any theoretically sound evidence-based decision-making processes, inclusion-oriented schools continue to grapple with how to make decisions about which students with disabilities should receive teacher assistant supports and how services should be provided. In a recent conceptual analysis, Giangreco, Doyle, and Suter (2012) argue that commonly used approaches to decision-making are flawed and ask the wrong questions,



in part because they are rooted in reactive justification models that inappropriately put too much emphasis on student characteristics:

*Posing justification questions is inherently problematic because it inhibits both logical and creative problem-solving by restricting potential solutions to a narrow, pre-determined, set of possibilities which focus on paraprofessionals as the answer rather than among a broader array of possibilities. (p. 364)*

Schools lacking clear models of inclusive service delivery are fertile ground for unhelpful justification approaches to flourish in ways that continue to subject students to questionable supports and, counterintuitively, may actually contribute to increasing the numbers of teacher assistants if they are perceived as the primary or exclusive support available to teachers and can be accessed through a justification process. Communities are encouraged to proactively replace justification approaches at both the school and classroom levels (Giangreco et al., 2012). Some foundational school-level actions include: (a) developing a shared understanding of inclusive education; (b) developing a set of principles to guide support services; (c) clarifying roles of all team members in reference to students with disabilities, starting with the lead professionals (e.g., teachers, special educators, administrators) before considering the roles of teacher assistants; (d) exploring and understanding school service delivery data (e.g., caseloads, personnel ratios); (e) self-assessing critical general and special education practices; and (f) building a service delivery model that accounts for the full range of student diversity. At the classroom level teams can (a) assess the classroom environment (e.g., physical arrangements, materials, arrangement/proximity of people) to facilitate belonging, participation, and learning; (b) plan individualised curriculum; (c) ensure purposeful instruction within typical class activities; and (d) provide necessary and contextually appropriate supports.

### *Alternatives to Overreliance on Teacher Assistants*

Recent research and common sense reminds us that no single alternative is likely to solve all the underlying service delivery problems that are manifested in our overreliance and ineffective utilisation of teacher assistants. Determining an individually selected set of alternatives by a cross-stakeholder group, using a field-tested process, can serve as a catalyst for school improvement (Giangreco, Broer, & Suter, 2011). When considering alternatives, it is important to remember that the goal is not reducing the numbers of teacher assistants (though in some cases that may occur), but rather to ensure appropriate educational supports for all students. It would be educationally inadvisable to merely reduce the number of teacher assistants without putting into place constructive alternative supports that more effectively meet student needs. Table 1 offers a list of some alternatives schools have employed to build more inclusive service delivery models while becoming less reliant on teacher assistants (Giangreco, Broer, & Suter, 2011; Giangreco, Halvorsen, Doyle, & Broer, 2004).

### **Conclusion**

Overuse and misuse of teacher assistants is a symptom, not a cause. Addressing challenges associated with teacher assistant utilisation may be most effectively addressed by simultaneously and persistently attending to root issues within general and special education. By purposely building integrated service delivery models with correspondingly inclusive practices we can strive to account for the academic and social learning needs representing the full range of student diversity present in our schools. In essence, a gift offered by our

**TABLE 1**  
**Alternatives to Overreliance on Teacher Assistants**

<i>Category of alternatives</i>	<i>Brief description of alternatives</i>
Resource reallocation	Resources may be reallocated by trading in teacher assistant positions to hire additional special education teachers. Typically, one early career special educator can be hired for approximately the same cost as three teacher assistants.
Co-teaching	Co-teaching involves assigning a teacher and special educator to work together in the same classroom. To maintain a naturally occurring number of students with special needs, it may be necessary to share the special educator across three or four classes, depending on class size.
Building capacity of teachers	Building teacher capacity (e.g., expectations of teacher engagement with students with disabilities, differentiated instruction, universal design, response to instruction, positive behaviour supports, curriculum overlapping, assistive technology) can reduce overreliance on teacher assistants.
Paperwork assistants	Teacher assistants may be assigned clerical paperwork duties that free time for special educators to collaborate with teachers and work directly with students.
Improving working conditions for special educators and classroom teachers	Reducing caseload size, the grade range covered, and the number of teachers with whom special educators interact can improve their working conditions. Exploring changes in class size, availability of special educator support, scheduling coordinated meeting times, and providing access to adapted materials are examples of steps that can improve working conditions for teachers.
Peer supports	Encouraging peer support strategies can provide natural ways to support students with disabilities that may also benefit students without disabilities.
Self-determination	Purposely teaching self-determination skills provides opportunities for students with disabilities to have a voice in determining their own supports.
Teacher assistant pools	Establishing a small pool of highly skilled teacher assistants (or one floating position for a small school) allows for their temporary assignments to address specific, short-term needs.
Fading plans	In cases where a student is receiving a substantial amount of teacher assistant support, developing a plan to fade that support as much as possible can lead to greater student independence and more natural supports.
Dual certified teachers	Hiring teachers who are certified in both general and special education provides enhanced personnel capacity for all students.

students with disabilities is that their presence often prompts us to reflect on current practices and identify needs for improvement. When educational communities embrace this challenge and make changes to create inclusive learning environments and opportunities for students with disabilities, those efforts undoubtedly create better schools for all our students.

## References

- Australian Association of Special Education. (2007). *Position paper on teacher aides*. Bomaderry, Australia: Author. Retrieved from [http://www.aase.edu.au/index.php?option=com\\_content&view=article&id=64&Itemid=99](http://www.aase.edu.au/index.php?option=com_content&view=article&id=64&Itemid=99)
- Bingham, M.A., Spooner, F., & Browder, D. (2007). Training paraeducators to promote the use of augmentative and alternative communication by students with significant disabilities. *Education and Training in Developmental Disabilities, 42*, 339–352.
- Blatchford, P., Bassett, P., Brown, P., Martin, C., Russell, A., & Webster, R. (2011). The impact of support staff on pupils' 'positive approaches to learning' and their academic progress. *British Educational Research Journal, 37*, 443–464. doi:10.1080/01411921003734645

- Blatchford, P., Russell, A., & Webster, R. (2011). *Reassessing the impact of teaching assistants: How research challenges practice and policy*. London, UK: Routledge.
- Bourke, P.E. (2009). Professional development and teacher aides in inclusive education contexts: Where to from here? *International Journal of Inclusive Education*, 13, 817–827. doi:10.1080/13603110802128588
- Bourke, P., & Carrington, S. (2007). Inclusive education reform: Implications for teacher aides. *Australasian Journal of Special Education*, 31, 15–24. doi:10.1080/10300110601184701
- Broer, S.M., Doyle, M.B., & Giangreco, M.F. (2005). Perspectives of students with intellectual disabilities about their experiences with paraprofessional support. *Exceptional Children*, 71, 415–430.
- Brown, L., Farrington, K., Knight, T., Ross, C., & Ziegler, M. (1999). Fewer paraprofessionals and more teachers and therapists in educational programs for students with significant disabilities. *Journal of the Association for Persons with Severe Handicaps*, 24, 250–253.
- Butt, R., & Lowe, K. (2012). Teaching assistants and class teachers: Differing perceptions, role confusion and the benefits of skills-based training. *International Journal of Inclusive Education*, 16, 207–219. doi:10.1080/13603111003739678
- Carter, E., O'Rourke, L., Sisco, L.G., & Pelsue, D. (2009). Knowledge, responsibilities, and training needs of paraprofessionals in elementary and secondary schools. *Remedial and Special Education*, 30, 344–359. doi:10.1177/0741932508324399
- Carter, E.W., Sisco, L.G., Brown, L., Brickham, D., & Al-Khabbaz, Z.A. (2008). Peer interactions and academic engagement of youth with developmental disabilities in inclusive middle and high school classrooms. *American Journal on Mental Retardation*, 113, 479–494. doi:10.1352/2008.113:479-494
- Causton-Theoharis, J.N., Giangreco, M.F., Doyle, M.B., & Vadasy, P.F. (2007). Paraprofessionals: The “sous-chefs” of literacy instruction. *Teaching Exceptional Children*, 40(1), 56–62.
- Causton-Theoharis, J.N., & Malmgren, K.W. (2005). Increasing peer interactions for students with severe disabilities via paraprofessional training. *Exceptional Children*, 71, 431–444.
- Council for Exceptional Children. (2008). *CEC's position on response to intervention (RTI): The unique role of special education and special educators*. Arlington, VA: Author. Retrieved from <http://www.cec.sped.org/~Media/Files/Policy/CEC Professional Policies and Positions/RTI.pdf>
- D'Alessio, S., & Watkins, A. (2009). International comparisons of inclusive policy and practice: Are we talking about the same thing? *Research in Comparative & International Education*, 4, 233–249. doi:10.2304/rcie.2009.4.3.233
- Devlin, P. (2005). Effect of continuous improvement training on student interaction and engagement. *Research and Practice for Persons with Severe Disabilities*, 30, 47–59. doi:10.2511/rpsd.30.2.47
- Fisher, M., & Pleasants, S.L. (2012). Roles, responsibilities, and concerns of paraeducators: Findings from a statewide survey. *Remedial and Special Education*, 33, 287–297. doi:10.1177/0741932510397762
- French, N.K. (2001). Supervising paraprofessionals: A survey of teacher practices. *Journal of Special Education*, 35, 41–53. doi:10.1177/002246690103500105
- Ghere, G., & York-Barr, J. (2007). Paraprofessional turnover and retention in inclusive programs: Hidden costs and promising practices. *Remedial and Special Education*, 28, 21–32. doi:10.1177/07419325070280010301
- Giangreco, M.F. (2003). Working with paraprofessionals. *Educational Leadership*, 61(2), 50–53.
- Giangreco, M.F. (2010). One-to-one paraprofessionals for students with disabilities in inclusive classrooms: Is conventional wisdom wrong? *Intellectual and Developmental Disabilities*, 48, 1–13. doi:10.1352/1934-9556-48.1.1
- Giangreco, M.F., & Broer, S.M. (2003). *Guidelines for selecting alternatives to overreliance on paraprofessionals*. Burlington, VT: University of Vermont, Center on Disability and Community Inclusion. Retrieved from <http://www.uvm.edu/~cdci/evolve/gsa.html>
- Giangreco, M.F., & Broer, S.M. (2005). Questionable utilization of paraprofessionals in inclusive schools: Are we addressing symptoms or causes? *Focus on Autism and Other Developmental Disabilities*, 20, 10–26. doi:10.1177/10883576050200010201
- Giangreco, M.F., & Broer, S.M. (2007). School-based screening to determine overreliance on paraprofessionals. *Focus on Autism and Other Developmental Disabilities*, 22, 149–158. doi:10.1177/10883576070220030201

- Giangreco, M.F., Broer, S.M., & Edelman, S.W. (1999). The tip of the iceberg: Determining whether paraprofessional support is needed for students with disabilities in general education settings. *Journal of the Association for Persons with Severe Handicaps*, 24, 281–291.
- Giangreco, M.F., Broer, S.M., & Edelman, S.W. (2001). Teacher engagement with students with disabilities: Differences based on paraprofessional service delivery models. *Journal of the Association for Persons with Severe Handicaps*, 26, 75–86.
- Giangreco, M.F., Broer, S.M., & Suter, J.C. (2011). Guidelines for selecting alternatives to overreliance on paraprofessionals: Field-testing in inclusion-oriented schools. *Remedial and Special Education*, 32, 22–38. doi:10.1177/0741932509355951
- Giangreco, M.F., Carter, E.W., Doyle, M.B., & Suter, J.C. (2010). Supporting students with disabilities in inclusive classrooms: Personnel and peers. In R. Rose (Ed.), *Confronting obstacles to inclusion: International responses to developing inclusive schools* (pp. 247–263). Abingdon, UK: Routledge.
- Giangreco, M.F., & Doyle, M.B. (2007). Teacher assistants in inclusive schools. In L. Florian (Ed.), *The SAGE handbook of special education* (pp. 429–439). London, UK: Sage. doi:10.4135/9781848607989.n33
- Giangreco, M.F., Doyle, M.B., & Suter, J.C. (2012). Constructively responding to requests for paraprofessionals: We keep asking the wrong questions. *Remedial and Special Education*, 33, 362–373. doi:10.1177/0741932511413472
- Giangreco, M.F., Doyle, M.B., & Suter, J.C. (in press). Teacher assistants in inclusive classrooms. In L. Florian (Ed.), *The SAGE handbook of special education* (2nd ed., pp. TBD). London, UK: Sage.
- Giangreco, M.F., Edelman, S.W., & Broer, S.M. (2003). Schoolwide planning to improve paraeducator supports. *Exceptional Children*, 70, 63–79.
- Giangreco, M.F., Edelman, S.W., Broer, S.M., & Doyle, M.B. (2001). Paraprofessional support of students with disabilities: Literature from the past decade. *Exceptional Children*, 68, 45–63.
- Giangreco, M.F., Edelman, S.W., Luiselli, T.E., & MacFarland, S.Z. (1997). Helping or hovering? Effects of instructional assistant proximity on students with disabilities. *Exceptional Children*, 64, 7–18.
- Giangreco, M.F., Halvorsen, A.T., Doyle, M.B., & Broer, S.M. (2004). Alternatives to overreliance on paraprofessionals in inclusive schools. *Journal of Special Education Leadership*, 17, 82–90.
- Giangreco, M.F., Hurley, S.M., & Suter, J.C. (2009). Special education personnel utilization and general class placement of students with disabilities: Ranges and ratios. *Intellectual and Developmental Disabilities*, 47, 53–56. doi:10.1352/2009.47:53-56
- Giangreco, M.F., Smith, C.S., & Pinckney, E. (2006). Addressing the paraprofessional dilemma in an inclusive school: A program description. *Research and Practice for Persons with Severe Disabilities*, 31, 215–229.
- Giangreco, M.F., Suter, J.C., & Doyle, M.B. (2010). Paraprofessionals in inclusive schools: A review of recent research. *Journal of Educational and Psychological Consultation*, 20, 41–57. doi:10.1080/10474410903535356
- Giangreco, M.F., Suter, & Graf, V. (2011). Roles of team members supporting students with disabilities in inclusive classrooms. In M.F. Giangreco, C.J. Cloninger, & V.S. Iverson (Eds.), *Choosing outcomes and accommodations for children: A guide to educational planning for students with disabilities* (3rd. ed., pp. 197–204). Baltimore, MD: Brookes.
- Giangreco, M.F., Suter, J.S., & Hurley, S.M. (2011). Revisiting personnel utilization in inclusion-oriented schools. *Journal of Special Education*. Advance online publication. doi:10.1177/0022466911419015
- Groom, B., & Rose, R. (2005). Supporting the inclusion of pupils with social, emotional and behavioural difficulties in the primary school: The role of teaching assistants. *Journal of Research in Special Educational Needs*, 5, 20–30. doi:10.1111/j.1471-3802.2005.00035.x
- Hemmingsson, H., Borell, L., & Gustavsson, A. (2003). Participation in school: School assistants creating opportunities and obstacles for pupils with disabilities. *Occupational Therapy Journal of Research: Occupation, Participation and Health*, 23(3), 88–98.
- Howard, R., & Ford, J. (2007). The roles and responsibilities of teacher aides supporting students with special needs in secondary school settings. *Australasian Journal of Special Education*, 31, 25–43. doi:10.1080/10300110701268461

- Logan, A. (2006). The role of the special needs assistant supporting pupils with special educational needs in Irish mainstream primary schools. *Support for Learning, 21*, 92–99. doi:10.1111/j.1467-9604.2006.00410.x
- Malmgren, K.W., & Causton-Theoharis, J.N. (2006). Boy in the bubble: Effects of paraprofessional proximity and other pedagogical decisions on the interactions of a student with behavioral disorders. *Journal of Research in Childhood Education, 20*, 301–312. doi:10.1080/02568540609594569
- Malmgren, K.W., Causton-Theoharis, J.N., & Trezek, B.J. (2005). Increasing peer interactions for students with behavioral disorders via paraprofessional training. *Behavioral Disorders, 31*, 95–106.
- Marks, S.U., Schrader, C., & Levine, M. (1999). Paraeducator experiences in inclusive settings: Helping, hovering, or holding their own? *Exceptional Children, 65*, 315–328.
- McDonnell, J., Johnson, J.W., Polychronis, S., & Risen, T. (2002). Effects of embedded instruction on students with moderate disabilities enrolled in general education classes. *Education and Training in Mental Retardation and Developmental Disabilities, 37*, 363–377.
- Quilty, K.M. (2007). Teaching paraprofessionals how to write and implement Social Stories for students with autism spectrum disorders. *Remedial and Special Education, 28*, 182–189. doi:10.1177/07419325070280030701
- Riggs, C.G., & Mueller, P.H. (2001). Employment and utilization of paraeducators in inclusive settings. *Journal of Special Education, 35*, 54–62. doi:10.1177/002246690103500106
- Rubie-Davies, C.M., Blatchford, P., Webster, R., Koutsoubou, M., & Bassett, P. (2010). Enhancing learning? A comparison of teacher and teaching assistant interactions with pupils. *School Effectiveness and School Improvement, 21*, 429–449. doi:10.1080/09243453.2010.512800
- Rutherford, G. (2011). Doing right by teacher aides, students with disabilities, and relational social justice. *Harvard Educational Review, 81*, 95–118.
- Rutherford, G. (2012). In, out or somewhere in between? Disabled students' and teacher aides' experiences of school. *International Journal of Inclusive Education, 16*, 757–774. doi:10.1080/13603116.2010.509818
- Shaddock, A. J., Nielsen, T. W., Giorcelli, L., Kilham, C.H., & Hoffman-Raap, L. (2007). What are the critical factors in ensuring successful collaboration between mainstream teachers and teaching assistants? In A. J. Shaddock, B. Smyth King, & L. Giorcelli (Eds.), *A project to improve the learning outcomes of students with disabilities in the early, middle and post compulsory years of schooling. Part 1: Research objectives, methodology, analyses, outcomes and findings, and implications for classroom practice* (pp. 209–259). Canberra: Australian Government Department of Education, Science & Training. Retrieved from <http://www.canberra.edu.au/researchrepository/items/a5cc5891-3ac6-5572-bab4-b7d439ab3db1/1/>
- Skär, L., & Tamm, M. (2001). My assistant and I: Disabled children's and adolescents' roles and relationships to their assistants. *Disability & Society, 16*, 917–931. doi:10.1080/09687590120084010
- Suter, J.C., & Giangreco, M.F. (2009). Numbers that count: Exploring special education and paraprofessional service delivery in inclusion-oriented schools. *Journal of Special Education, 43*, 81–93. doi:10.1177/0022466907313353
- Tews, L., & Lupart, J. (2008). Students with disabilities' perspectives of the role and impact of paraprofessionals in inclusive education settings. *Journal of Policy and Practice in Intellectual Disabilities, 5*, 39–46. doi:10.1111/j.1741-1130.2007.00138.x
- Tompkins, R.H., Ratcliff, N., Jones, C., Vaden, S.R., Hunt, G., & Sheehan, H.C. (2012). The myth of the foolproof script: Can paraprofessionals effectively improve kindergarten student achievement using a scripted phonics program? *Early Years: An International Journal of Research and Development, 32*, 313–323.
- Tillery, C.Y., Werts, M.G., Roark, R., & Harris, S. (2003). Perceptions of paraeducators on job retention. *Teacher Education and Special Education, 26*, 118–127. doi:10.1177/088840640302600205
- Wallace, T., Shin, J., Bartholomay, T., & Stahl, B.J. (2001). Knowledge and skills for teachers supervising the work of paraprofessionals. *Exceptional Children, 67*, 520–533.
- Webster, R., Blatchford, P., Bassett, P., Brown, P., Martin, C., & Russell, A. (2010). Double standards and first principles: Framing teaching assistant support for pupils with special educational needs. *European Journal of Special Needs Education, 25*, 319–336. doi:10.1080/08856257.2010.513533

- Werts, M.G., Zigmond, N., & Leeper, D.C. (2001). Paraprofessional proximity and academic engagement: Students with disabilities in primary aged classrooms. *Education and Training in Mental Retardation and Developmental Disabilities*, 36, 424–440.
- Young, B., Simpson, R.L., Myles, B.S., & Kamps, D.M. (1997). An examination of paraprofessional involvement in supporting students with autism. *Focus on Autism and Other Developmental Disabilities*, 12, 31–38, 48. doi:10.1177/108835769701200104