

One-to-One Paraprofessionals for Students With Disabilities in Inclusive Classrooms: Is Conventional Wisdom Wrong?

Michael F. Giangreco

Abstract

Assigning one-to-one paraprofessionals has become an increasingly common response to support students with intellectual and other developmental disabilities in general education classrooms. This article challenges the conventional wisdom that such an approach to service provision is necessarily a desirable and supportive action. Five main reasons are presented that challenge overreliance on the use of one-to-one paraprofessionals in inclusive classrooms, establishing it as a critical issue in special education. A series of recommended positions and initial actions are offered to spur debate and encourage development of alternatives to the status quo.

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In their best-selling book, *Freakonomics* (2006), economist Steven Levitt and journalist Stephen Dubner used their analyses of data sets to challenge conventional wisdom and pose alternative explanations on a range of contemporary topics such as crime, parenting, real estate transactions, and even rigged Sumo wrestling matches in Japan. Their central thesis was that some aspects of conventional wisdom, though commonly accepted as accurate, might be wrong. The purpose of this article is to use existing data and conceptual arguments to challenge one aspect of conventional wisdom in special education, namely the increasing reliance on one-to-one paraprofessionals as a primary element to support students with a range of developmental disabilities (e.g., autism, intellectual disabilities, orthopedic disabilities, behavioral challenges, multiple disabilities) in inclusive classrooms.

As more students with greater disability-related support needs are placed in general education classes, the assignment of one-to-one paraprofessionals has become increasingly common and is advocated for by parents and professionals (Chopra & French, 2004; Giangreco, Broer, & Suter, in press; Suter & Giangreco, 2009; Werts, Harris, Tillery, & Roark, 2004; Wolery, Werts, Caldwell, Snyder, & Liskowski, 1995). Conventional wisdom suggests that many educational team members view

the assignment of one-to-one paraprofessionals as a desirable and supportive action. As a field, might we be wrong?

Challenging overreliance on one-to-one paraprofessionals is not intended to diminish the contributions made by many dedicated, hardworking, and often underappreciated paraprofessionals. Nor is this challenge designed to preclude the thoughtful use of paraprofessionals, a practice widely acknowledged as beneficial and consistent with federal law (Ashbaker & Morgan, 2006; Doyle, 2008; French, 2003; Pickett, Gerlach, Morgan, Likins, & Wallace, 2007). The Individuals With Disabilities Education Improvement Act of 2004 (IDEA) allows for paraprofessionals who are appropriately trained to “assist in the provision of special education” under the supervision of qualified professionals (Section 612 [a][14][B][iii]).

Reasons Why Increasing Reliance on One-to-One Warrants Scrutiny

In the remainder of this article, I offer five key reasons why the increasing reliance on one-to-one paraprofessionals warrants closer scrutiny as a critical issue in special education. I recommend a set of positions on one-to-one paraprofessional use

as a starting point for additional discussion of this topic. I offer potential actions to encourage constructive changes that would be designed to better meet the needs of students with disabilities and provide appropriate systems-level and individualized supports.

Insufficient Data Are Available Regarding One-to-One Supports to Guide Policy and Practice

The use of paraprofessionals is ubiquitous. The National Center for Educational Statistics (Hampden-Thompson, Diehl, & Kinukawa, 2007) reported that paraprofessionals are employed in over 90% of U.S. public elementary and secondary schools. The National Longitudinal Transition Study 2 (Wagner, Newman, Cameto, Levine, & Marder, 2003) reported that more than 84% of students with disabilities attend schools where paraprofessionals are available as a means of support to general education teachers and identified the use of paraprofessionals as the type of support that has increased the most (56%) since the first National Longitudinal Study (1987–1991).

Over the past several decades, the number of special education paraprofessionals has steadily grown and their roles have become increasingly instructional (Pickett et al., 2007; Wallace, 2004). Federal special education data indicate that, as of 2006, there were nearly 357,000 special education paraprofessionals serving students with disabilities Ages 6–21 years. Twenty-three states now have more special education paraprofessional full-time equivalents (FTEs) than special educator FTEs (U.S. Department of Education, 2006b, 2006c).

States that include a higher percentage of their students with disabilities in general education classes (e.g., ND, NH, OR, SD, VT) tend to have service delivery systems that have more paraprofessionals than special educators (U.S. Department of Education, 2006a, 2006b), thus bolstering the notion that paraprofessionals are being used as a key mechanism to operate inclusive placements. National statistics do not document the subset of special education paraprofessionals who are assigned one-to-one to support students with disabilities. Yet, data from inclusion-oriented schools suggest that the proportion of special education paraprofessionals assigned on a one-to-one basis is substantial. In three recent studies based on

combined data from 58 schools across six states (i.e., CA, CT, KS, NH, VT, WI), the percentage of special education one-to-one paraprofessionals ranged from 42% to 54% (Giangreco & Broer, 2005, 2007; Suter & Giangreco, 2009). Other research has documented a variety of situations where students with a range of disabilities have been assigned one-to-one paraprofessional support (e.g., Chopra & French, 2004; Downing, Ryndak, & Clark, 2000; Giangreco, Broer, & Edelman, 2002; Giangreco, Dennis, Cloninger, Edelman, & Schattman, 1993; Giangreco, Smith, & Pinckney, 2006; Malmgren & Causton-Theoharis, 2006; McDonnell, Johnson, Polychronis, & Risen, 2002; Tews & Lupart, 2008; Werts et al., 2004; Werts, Zigmond, & Leeper, 2001).

In the special education field, there are virtually no national data about the demographic characteristics (e.g., gender, race, socioeconomic status), learning characteristics, or disability categories of the students who are receiving one-to-one paraprofessional supports. A recent study found that, in a sample of 103 students with disabilities who were receiving one-to-one paraprofessional supports, most were identified as having either moderate to severe behavior problems (82%) and/or moderate to severe intellectual disabilities (74%), crossing several IDEA disability categories (Suter & Giangreco, 2009). Males accounted for 77% of those receiving one-to-one supports. Only 32% of students receiving one-to-one paraprofessional supports participated in alternate assessments. This suggests that the majority of these students were too high functioning to qualify for alternate assessments, yet their individualized education plan (IEP) teams simultaneously decided that they needed full-time, one-to-one paraprofessional support. Why?

The increasing use of special education paraprofessionals, including those assigned on a one-to-one basis, conservatively affects hundreds of thousands of students with disabilities in the vast majority of American schools. Although there are national estimates on the use special education paraprofessionals, there are inadequate data on one-to-one paraprofessional supports to follow trends in their use or to inform policymaking and practices at federal, state, and local levels. Becoming more informed about one-to-one paraprofessional use holds the potential to positively affect students with disabilities, their families, service providers, and service delivery in schools.

Overreliance on Paraprofessionals Is Conceptually Flawed

There is no strong conceptual or theoretical basis for assigning the least qualified, lowest paid, often inadequately supervised staff, namely paraprofessionals, to provide the bulk of instruction for students with the most complex learning characteristics (Brown, Farrington, Ziegler, Knight, & Ross, 1999). Reviews of the literature suggest that far too many special education paraprofessionals continue to engage in potentially inappropriate roles and remain inadequately trained and supervised despite decades of calls for these basic standards of quality (Giangreco, Edelman, Broer, & Doyle, 2001; Giangreco, Suter, & Doyle, in press; Jones & Bender, 1993).

A recent, 5-year study of 26 schools that were exploring alternatives to overreliance on paraprofessionals (Giangreco, Broer, et al., in press) documented the hiring of special education paraprofessionals as a “quick fix” (p. 10). In several of the schools, paraprofessionals served as the “primary mechanism to support students with disabilities in the general education environment” (p. 10). As 1 study respondent stated, “Our service delivery model for kids with significant disabilities has pretty much been: hire a paraprofessional” (p. 10). Relying on paraprofessionals as the first, primary, and, at times, only support response for some students with disabilities in general education classes is a worrisome trend occurring with increasing frequency.

Research indicates that not only are special education paraprofessionals playing a prominent role in providing instruction to students with disabilities, they are engaging in roles for which they are questionably prepared (French, 1998; Minondo, Meyer, & Xin, 2000; Riggs & Mueller, 2001). In some cases, paraprofessionals are inappropriately left to fend for themselves, functioning as the primary teachers for some students with disabilities (Patterson, 2006; Suter & Giangreco, 2009) and are making many daily instructional and curricular decisions (Downing, Ryndak, & Clark, 2000; Giangreco, Edelman, Luiselli, & MacFarland, 1997; Marks, Shrader, & Levine, 1999). In a study that included data from 153 special education paraprofessionals, nearly 70% agreed or strongly agreed that they make curricular and instructional decisions without always having oversight from a teacher or special educator (Giangreco & Broer, 2005).

Having paraprofessionals assume high levels of instructional responsibility presents a double standard that likely would be considered unacceptable if it were applied to students without disabilities (Giangreco, 2003) and is inconsistent with both the IDEA and No Child Left Behind (NCLB, 2002) focus on ensuring that students with disabilities have access to highly qualified teachers and special educators. In addition, overreliance on paraprofessionals may be unnecessarily restrictive or reduce the probability of ensuring that students with disabilities receive a free, appropriate, public education (FAPE; Etscheidt, 2005), especially in situations where students are assigned one-to-one paraprofessionals with no planned efforts to reduce that support (*A. C. & M. C. v. Board of Education of the Chappaqua Central School*, 2007). In an analysis of historical and current challenges facing the U.S. special education system, Hehir (2006) stated, “The inappropriate use of paraprofessionals may reflect ableist assumptions about children with disabilities and have negative consequences for children” (pp. 73–74).

Typical responses by schools to the plethora of paraprofessional issues have been to pursue better role clarification, training, and supervision. Although warranted, these steps fail to acknowledge a potentially more fundamental concern, namely that the very provision of one-to-one paraprofessional supports may be part of the problem. Furthermore, appropriate roles of general education teachers and special educators in inclusive classrooms must be determined before roles for paraprofessionals can be reasonably defined. If improvements focus solely on paraprofessionals, without corresponding attention to teacher and special educator roles and capacity, it can be counterproductive by leading to the “training trap” (Giangreco, 2003, p. 51). This occurs when professionals relinquish ever-more instructional responsibility for students with disabilities to paraprofessionals based on those paraprofessionals’ receiving virtually any amount or level of training and reasoning “now they are trained.”

Proliferation of one-to-one paraprofessional supports has insufficient conceptual, theoretical, and evidence bases to continue unfettered without closer scrutiny as a critical issue. Brown et al. (1999) argued that students with disabilities in inclusive schools who present the most challenging learning characteristics are “in dire need of continuous exposure to the most ingenious, crea-

tive, powerful, competent, interpersonally effective, and informed professionals” (p. 252). This would require rethinking special education service delivery in inclusive classrooms and developing updated models that account for the influx of students with greater support needs.

Research Has Identified a Host of Inadvertent Detrimental Effects

Although there is little doubt that advocacy for one-to-one paraprofessional supports is suggested with benevolent intentions, there is a substantial amount of data documenting that overreliance on paraprofessionals can lead to a wide range of inadvertent detrimental effects, such as unhealthy dependency, stigmatization, interference with teacher engagement, and interference with peer interactions (Broer, Doyle, & Giangreco, 2005; Carter, Sisco, Brown, Brickham, & Al-Khabbaz, 2008; Giangreco et al., 1997; Giangreco, Boer, & Edelman, 2001; Hemmingsson, Borell, & Gustavsson, 2003; Malmgren & Causton-Theoharis, 2006; Marks et al., 1999; Skar & Tamm, 2001; Tews & Lupart, 2008).

Table 1 provides a summary of 10 types of detrimental effects documented in contemporary research. Even the small number of studies that have reported positive or mixed results about the close proximity of paraprofessionals (Tews & Lupart, 2008; Werts et al., 2001; Young, Simpson, Miles, & Kamps, 1997) have acknowledged concerns about paraprofessionals' impact on issues such as dependence and peer interactions. The detrimental effects of overreliance on paraprofessionals provide an additional reason to scrutinize this support practice as a critical issue in special education. As a field, we need to ensure that well-intended supports do not inadvertently restrict opportunities for students with disabilities or otherwise interfere with them receiving FAPE in the least restrictive environment.

Current Approaches to Decision Making Are Inadequate

Another reason why overreliance on one-to-one paraprofessionals is a critical issue is that no theoretically grounded decision-making models for determining the need for one-to-one paraprofessional supports for students with disabilities in general education classrooms exist in the professional literature that have reported systematic field

testing or other data on the use and impact. Freschi (1999) described one of the few published approaches for “working with one-to-one aides” (p. 42): The first step is a justification review consisting of guiding questions to assist teams in considering paraprofessional supports and alternative solutions. This approach is based on the premise that the assignment of a one-to-one paraprofessional should be considered temporary. Only one other set of decision-making guidelines (Giangreco, Broer, & Edelman, 1999) and one programmatic description of a school-based, paraprofessional, decision-making process (Mueller & Murphy, 2001) have been described in peer-reviewed sources, although neither included corresponding use or outcome data.

Although school personnel may be involved in decision making regarding the potential need for personnel supports, too often the decision-making roles of students with disabilities, their parents, and classroom teachers are insufficient, unplanned, or unclear (Giangreco, Edelman, Luiselli, & MacFarland, 1998). Only recently have studies explored the perspectives of students with developmental disabilities who have received paraprofessional supports (Broer et al., 2005; Tews & Lupart, 2008). The absence of a team decision-making process or the lack of clarity regarding an existing process increases the potential for conflicts among the various stakeholders who are responsible for educating the same student (Giangreco et al., 1998).

The fact that the special education field has proliferated the use of one-to-one paraprofessional supports without adequate decision-making models regarding their use highlights another reason why it is such a critical issue in special education. The absence of conceptually sound, evidence-based, decision-making practices that account for educational support needs and consumer perspectives increases the likelihood that supports will be inappropriately provided in ways that expose students with disabilities to inadvertent negative consequences or inadequately meet their needs.

Overreliance on Paraprofessionals Delays Attention to Important Changes

There are understandable reasons why many parents, teachers, and special educators advocate for additional supports for some students with disabilities when they are placed in general

Table 1 Inadvertent Detrimental Effects of Excessive Paraprofessional Proximity

Category of effect	Description
Separation from classmates	Student with a disability and paraprofessional are seated in the back or side of the room, physically separated from the class
Unnecessary dependence	Student with a disability is hesitant to participate without paraprofessional direction, prompting, or cueing
Interference with peer interaction	Paraprofessionals can create physical or symbolic barriers interfering with interactions between a student with disabilities and classmates
Insular relationships	Student with a disability and paraprofessional do most everything together, to the exclusion of others (e.g., peers)
Feelings of stigmatization	Student with a disability expresses embarrassment/discomfort about having a paraprofessional because it makes him/her stand out in negative ways.
Limited access to competent instruction	Paraprofessionals are not always skilled in providing instruction. Some do the work for the students they support in an effort to keep up (a sign that instruction has not been adequately adapted)
Interference with teacher engagement	Teachers tend to be less involved when a student with a disability has a one-to-one paraprofessional because individual attention is already available to the student
Loss of personal control	Paraprofessionals do so much for the students with disabilities that they do not exercise choices that are typical of other students
Loss of gender identity	Student with a disability is treated as the gender of the paraprofessional (e.g., male taken into female bathroom)
Provocation of problem behaviors	Some students with disabilities express their dislike of paraprofessional support by displaying undesirable behaviors (e.g., running away, foul language, aggression)
Risk of being bullied	Some students are teased or bullied because they are assigned a paraprofessional

Note. Adapted from Giangreco, Yuan, McKenzie, Cameron, and Fialka (2005). Reproduced with permission, copyright 2005 by the Council for Exceptional Children, Inc., www.cec.sped.org. All rights reserved.

education classrooms (Carter & Hughes, 2006; Werts et al., 2004). Administrators may grant requests for one-to-one paraprofessionals in an effort to be supportive, because they lack alternatives, or because it is perceived as cost effective. Yet, recent research has indicated that, although paraprofessionals are paid substantially less than professional staff, there are a variety of hidden costs (Ghere & York-Barr, 2007). What remains in question is whether assigning a one-to-one paraprofessional is an appropriate support in response team members' concerns. Does assigning a one-to-one paraprofessional actually address important concerns of team members or merely shift the concerns to paraprofessionals?

Parents express a host of concerns about the commitment and capacity of the regular education

system to meet their children's educational needs (e.g., acceptance, social interactions, instructional accommodations, mistreatment by peers). One-to-one paraprofessionals are seen by some parents as a mechanism to protect their child from perceived inadequacies of the regular education system and successfully include their children with disabilities, ensure that they receive individual attention, and establish a communication pipeline between the home and school (Chopra & French, 2004). In light of their responsibilities for other students with a range of needs, teachers have concerns as well about issues such as (a) the adequacy of their own preparation and capacity to instruct mixed-ability groups that include students with disabilities; (b) access to training, technical assistance, and other supports, (c) expectations for engagement with

students who have disabilities; and (d) students with disruptive or aggressive behaviors. Having an extra pair of hands in the classroom is welcomed by many teachers, as is the sense by some that the primary adult responsible for the student with a disability is the paraprofessional, even though this practice can be problematic for both students and paraprofessionals. One-to-one paraprofessionals are also perceived as mechanisms to relieve working-condition pressures (e.g., large caseloads, inadequate opportunities to collaborate with teachers, extensive paperwork, inadequate time for instruction of students with disabilities) experienced by some special educators in inclusive schools.

Therefore, although there is no doubt that parents, teachers, and special educators have justified concerns about how best to include students with disabilities in general education classes, one of the most common support responses, namely assigning a paraprofessional, is a mismatch to many of their concerns. Assigning a paraprofessional will not logically result in (a) improved teacher attitudes toward students with disabilities, (b) increased teacher instructional engagement with students who have disabilities, (c) increased teacher capacity to modify curriculum and instruction for mixed-ability groups, (d) improved special educator working conditions (e.g., smaller caseloads), (e) improved collaboration between teachers and special educators, (f) smaller class size, or (g) effective interventions (e.g., academic, social-behavioral) for students with disabilities. In fact, there are logical reasons and initial data suggesting that when one-to-one paraprofessionals are assigned to students with disabilities it delays or diverts our attention away from solving the challenges that are at the core of parent, teacher, and special educator concerns.

Many special educators in inclusive settings spend less time in instruction than the paraprofessionals they supervise and, due to the numerous demands of their positions, report spending only about 2% of their time supervising each of their paraprofessionals (Giangreco & Broer, 2005). Adding more paraprofessionals does nothing to increase special educator instructional time and would leave even less time to supervise a larger cadre of paraprofessionals, thereby exacerbating these problems. Data indicate that classroom teachers tend to be less engaged with students who have disabilities if a paraprofessional is assigned to that student and routinely provides

the bulk of instruction (Giangreco, Broer, et al., 2001). When part of a paraprofessional's role is to serve as a protector from bullying, students with disabilities have reported that teachers and administrators may be less likely to be involved in addressing bullying concerns because they feel they have provided protection, which invariably is only situationally or temporarily effective (Broer et al., 2005). By shifting increasing responsibilities to paraprofessionals, we have redistributed some pressures associated with including a wide range of students with disabilities in general education classes, but we have failed to substantively address the core concerns in logical and effective ways. Delaying attention to these and other core concerns impedes progress in the field and correspondingly reduces opportunities and positive outcomes for students with disabilities. The following sections offer five recommended positions and suggested actions to advance the field.

Potential Positions and Actions

Data Are Needed Regarding the Use of Paraprofessional Supports

Due to the limited data on one-to-one paraprofessionals supporting students with disabilities in inclusive schools, the field needs more state and federal data on this topic. Such data can establish a baseline to monitor trends and help guide policy and practice. The types of data that are needed include (a) characteristics of the students who are receiving one-to-one supports (e.g., demographics, learning characteristics, disability categories), (b) rationales for assigning one-to-one paraprofessionals and decision-making approaches, (c) classroom and special education service delivery parameters co-occurring with one-to-one paraprofessional supports (e.g., class size, special educator caseload size and configuration, number of paraprofessionals supervised per special educator, range of grade levels served by special educators, teacher skills and training to support students with disabilities, paraprofessional supervision), and (d) systems-level information (e.g., ratio of special educator FTE to special education paraprofessional FTE, ratio of special education paraprofessional FTE to students on IEPs, percentage of paraprofessional FTE assigned one-to-one).

Professional and advocacy organizations (e.g., the American Association on Intellectual and

Developmental Disabilities, Council for Exceptional Children, TASH [formerly The Association for Persons with Severe Disabilities) should encourage federal agencies, such as the National Center for Special Education Research, National Institute of Child Health and Human Development, and National Institute of Mental Health, to fund research on the use of paraprofessionals, including those assigned one-to-one, that could improve educational and health outcomes for children and youth with disabilities. Similarly, the U.S. Department of Education's Office of Special Education Programs (OSEP) should be encouraged to require states to submit basic information on the prevalence of one-to-one special education paraprofessionals in the personnel data each state submits for inclusion in OSEP's *Annual Report to Congress on the Implementation of the Individuals With Disabilities Education Act, Parts B and C* (OSEP, 2006) and to consider including data related to one-to-one paraprofessionals in future longitudinal studies funded by OSEP.

Data collection at the local level does not need to wait for these broader efforts. By collecting a variety of local data about one-to-one paraprofessional use, districts can improve practices in their own schools, classrooms, and for individual students, regardless of whether state and federal data are forthcoming in the near future. A small number of tools have been designed and field tested in inclusion-oriented schools to assist in assessing paraprofessional use (Giangreco, Edelman, & Broer, 2003; Giangreco, Broer, et al., in press; Suter & Giangreco, 2009).

Logical and Evidence-Based Parameters Are Needed for Using Paraprofessionals

If the special education field continues to use paraprofessionals in instructional roles, it has a responsibility to do so in a manner that has a logical foundation and is based on the best available evidence. A small number of studies have documented the effective use of paraprofessionals to support students' academic skills (Lane, Fletcher, Carter, Dejud, & Delorenzo, 2007; McDonnell, Johnson, Polychronis, & Risen, 2002; Vadasy, Sanders, & Tudor, 2007) and facilitate social interactions (Causton-Theoharis & Malmgren, 2005; Devlin, 2005; Malmgren, Causton-Theoharis, & Trezek, 2005) under specific conditions. Research suggests that instruction delivered by

paraprofessionals should be (a) supplemental, rather than primary or exclusive; (b) planned by a qualified professional (e.g., teacher, special educator) so that it does not require paraprofessionals to plan lessons, determine accommodations, or make other pedagogical decisions; (c) based on explicit and intensive training in research-based practices; and (d) followed by ongoing supervision to ensure implementation fidelity (Causton-Theoharis, Giangreco, Doyle, & Vadasy, 2007).

Requiring professionally prepared plans for paraprofessionals, training, and supervision are hardly novel; they have been suggested in the literature for decades despite the fact that these logical parameters remain inconsistently implemented and substantially unrealized in many settings (French, 2001). It is the notion that instruction provided by paraprofessionals to students with disabilities should be supplemental, rather than primary or exclusive, that has become a contemporary issue, with the advent of more one-to-one paraprofessional supports in inclusive classrooms. Although it is an indefensible position to leave a paraprofessional on his or her own to instruct a student with a disability without professionally prepared plans, training, and supervision, it is also inappropriate to have a paraprofessional provide the bulk of primary instruction to a student with a disability even if he or she has professionally prepared plans, training, and supervision. A defensible position for our field to pursue is that students with disabilities who are placed in inclusive classrooms deserve and should receive the bulk of their primary instruction from an individually determined combination of highly qualified teachers, special educators, and related services providers (if needed). Students may receive supplemental instructional support from appropriately trained and supervised paraprofessionals based on professionally prepared plans.

Simultaneously, noninstructional roles for paraprofessionals (e.g., clerical, materials preparation, personal care) should be acknowledged and valued as important contributions. When paraprofessionals engage in noninstructional duties, they often create time and opportunities for teachers and special educators to work directly with their students who have disabilities or to collaborate with each other (Giangreco, Edelman, & Broer, 2001). By valuing duties such as assisting students with personal care needs (e.g., toileting, eating, dressing) and delivering them in caring and

respectful ways, we affirm the dignity of students with severe disabilities and challenge the unhelpful culture of hierarchies among paraprofessionals where instructional roles are valued and noninstructional roles too often are devalued.

One-to-One Paraprofessional Support Should Be Considered Among the Most Restrictive Support Options

Given the existing data regarding the numerous potential negative consequences associated with the use of one-to-one paraprofessionals and the penchant for delaying attention to core concerns of team members, assignment of such support for a student with a disability should be considered among the most restrictive support options in a general education classroom. As such, it should be among the last resorts considered rather than a first or only option. Prior to considering the use of a one-to-one paraprofessional, IEP teams should consider what other actions might allow a student with a disability to make meaningful progress in the general education classroom. A combination of possibilities can be considered, such as (a) assistive technology, (b) teacher training (e.g., teaching mixed-ability groups, facilitating social interactions), (c) teaching formats that are amenable to students pursuing different learning outcomes or progressing at varying rates (e.g., activity-based instruction), (d) use of existing schoolwide supports (e.g., learning laboratory), (e) use of a paraprofessional assigned to a class rather than an individual student, (f) different models of delivery (e.g., coteaching in the classroom), (g) positive behavior supports, and (h) peer supports.

As a highly restrictive support within a regular class setting, if the assignment of a one-to-one paraprofessional is determined by the IEP team to be necessary, it should be closely monitored and efforts should be made to minimize potential negative consequences. This includes developing plans to fade the support during parts of the day where it is possible to do so, which can be accomplished through a combination of student skill development and alternative supports. Therefore, in the vast majority of cases, full-time, one-to-one paraprofessional support should be considered temporary. Development of such fading plans necessarily should involve professionals, parents, and the student in need of support. By fading one-to-one paraprofessional supports, students can

increasingly benefit from more typical academic and social opportunities available in regular classes and other school settings.

Decision-Making Tools Are Needed to Help Determine When Paraprofessional Supports Are Appropriate and Necessary

Given the absence of validated approaches, the field needs practical decision-making tools to help determine when paraprofessional supports are appropriate and necessary for students with disabilities in inclusive classrooms. Such tools could help guide teams, in part, by assessing whether paraprofessional supports match identified team needs. For example, if a team determined that they needed help adapting the general education curriculum for a student with a disability, consulting with the teacher about positive behavior supports, or selecting assistive technology, assigning a paraprofessional would not match these needs.

Development of paraprofessional decision-making tools should seek a person–environment fit by considering interactions between individual student needs (e.g., curricular, instructional, social, health) and environmental considerations (e.g., personnel capacity and roles, classroom environment and teaching formats, natural supports; Giangreco, Broer, & Edelman, 1999). It is less likely that sound decisions about the need for paraprofessional supports can be reasonably made based solely on disability characteristics. The reality that one student with a particular constellation of disability and learning characteristics receives one-to-one paraprofessional supports and another student (sometimes in the same school), with virtually identical characteristics, does not suggest that assignment of a one-to-one paraprofessional may have less to do with student characteristics than it does with the characteristics of the adults on the team, systems, or the historical patterns of service delivery. In addition, decision-making tools should incorporate information sharing with families so that their input is informed. Self-determination is central to decision making about any supports, including one-to-one paraprofessionals. Although the special education field has made some progress in involving students with disabilities in selecting their IEP goals, there is little evidence that students have much of a voice in determining their own supports.

Last, decision-making tools should not be designed with an “either/or” end point (e.g., a

student is either assigned a one-to-one paraprofessional or is not). For example, just because a student needs personal care support to use the bathroom (which might occur two or three times a day), this does not necessarily mean that a one-to-one paraprofessional is required throughout the entire day. Rather than an all-or-nothing approach, decision-making tools should seek to match appropriate supports to identified needs that may vary throughout the day and week.

Alternatives to Overreliance on Paraprofessionals and Proactive Models of Special Education Service Delivery Are Needed

The field needs additional research, demonstrations, and creative alternatives to overreliance on special education paraprofessionals in inclusive schools. Such alternatives can advance proactive, rather than reactive, approaches to service delivery. In many cases, the advocacy for assigning one-to-one paraprofessional support is reactive, based on the arrival of a new student who presents needs to which the school is either unaccustomed or which personnel feel unprepared to address given their current dispositions, skills, and use of existing resources. Tackling the issues associated with overreliance on one-to-one paraprofessional use provides opportunities for special educators and researchers to envision how to better serve students with a full range of disabilities in general education classes. Continuing along the status quo path will almost certainly stagnate our progress and may lead to regression in terms of least restrictive access and access to the general education curriculum for some students with disabilities.

A variety of alternatives to overreliance on paraprofessionals have been suggested, such as (a) resource reallocation (e.g., trading paraprofessional positions for special education positions), (b) coteaching, (c) increasing ownership of general educators and their capacity to include students with disabilities, (d) transitional paraprofessional pools (e.g., short-term, targeted assignments for roving staff), (e) reassigning paraprofessional roles (e.g., from one-to-one to classroom; paperwork paraprofessional), (f) lowering special educator caseloads to increase their opportunity to provide support in the classroom, and (g) peer supports (Carter, Cushing, Clark, & Kennedy, 2005; Carter, Sisco, Melekoglu, & Kurkowski, 2007; Giangreco, Halvorsen, Doyle, & Broer, 2004). A recently field-

tested planning model encourages schools to reduce their overreliance on special education paraprofessionals by strengthening (a) school and classroom environments and practices, (b) teacher practices, (c) special educator practices, (d) teacher and special educator collaboration, (e) family information and participation, and (f) student participation and reciprocal support (Giangreco, Broer, et al., in press). Schools are encouraged to develop proactive models of staffing and service delivery that account for the diversity of students who are likely to attend the school. It is essential that the initial capacity of any proactive model not be stretched to its limit. In other words, proactive models of service delivery should be able to reasonably absorb routine fluctuations in the student population (e.g., students moving in and out). If schools develop effective, inclusive models of service delivery, they should dramatically reduce their vulnerability to being overreliant on paraprofessionals while creating inclusive opportunities for a wider range of students with disabilities.

Conclusions and Caution

In identifying overreliance on paraprofessionals as a critical issue in special education and encouraging pursuit of alternatives, it is equally important to exercise caution so that this information is not misused to the detriment of students with disabilities. For example, it would be inappropriate for a school to use this article as a rationale to unilaterally or abruptly eliminate paraprofessional supports to students who currently receive them or to reduce services without involving a student's IEP team in designing and implementing alternatives designed to adequately meet the student's needs. Such actions would be contrary to this article's intended purpose of improving supports and outcomes for students with disabilities.

My critique of this field's current practices raised in this article is meant to encourage scrutiny of paraprofessionals supports as symptomatic of other core issues. Until we directly address those core issues (e.g., parent concerns, regular education capacity, special educator working conditions, school collaboration across disciplines), progress in the field will continue to be stymied. The appeal made by this article should not be misinterpreted as a call to service reduction but as a call to spur the collective creativity and commitment of the field to find new and better ways of supporting students

with a full range of disabilities in inclusive classrooms. What do you think? Is our current approach to one-to-one paraprofessional supports working for students with disabilities? Can we do better? Is conventional wisdom wrong?

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Author:

Michal F. Giangreco, PhD (Michael.Giangreco@uvm.edu), Professor, University of Vermont, Center on Disability & Community Inclusion, 208 Colchester Ave., Burlington, Vermont 05405-1757.