

Questionable Utilization of Paraprofessionals in Inclusive Schools: Are We Addressing Symptoms or Causes?

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This article presents descriptive, quantitative data from 737 school personnel and parents who support the education of students with a full range of disabilities in general education classes. The study addresses (a) how special education teachers and paraprofessionals spend their time, (b) perspectives of paraprofessionals about certain paraprofessional practices, and (c) perspectives of professionals and parents about schoolwide practices associated with inclusive special education that may contribute to reducing inappropriate utilization of special education paraprofessionals. The findings highlight concerns and suggest that focusing change efforts on paraprofessional issues without corresponding attention to general and special education issues is akin to addressing the symptoms of a problem rather than its roots.

Treating the symptoms of a problem may provide temporary relief or buy some time, but the symptoms will continue to surface until the root cause is adequately addressed. In reference to systemic educational problems, it can be difficult to determine where the roots of the problems truly lie, in part because it is rarely a single root that can be easily identified. More commonly, any particular educational concern of interest is likely to be part of a massive root system that is intertwined with other, equally complex, root systems (e.g., cultural context, varying student characteristics, organizational structures, political considerations).

In an era of increasing utilization of paraprofessionals (French, 2003b; Pickett, Likins, & Wallace, 2003), consider the following list of concerns associated with ensuring appropriate education for students with disabilities when schools rely on paraprofessionals as a primary support in general education classrooms (Brown, Farrington, Ziegler, Knight, & Ross, 1999; Giangreco & Doyle, 2002; Giangreco, Edelman, Broer, & Doyle, 2001; Hemmingsson, Borell, & Gustavsson, 2003; Marks, Schrader, & Levine, 1999; Skar & Tamm, 2001):

- The least qualified personnel are assigned to provide the bulk of instruction and support to students with the most challenging learning characteristics.
- It is challenging to hire and retain qualified paraprofessionals because they are paid low wages, sometimes without benefits, and report receiving insufficient respect.
- The scope and nature of paraprofessional work often is compromised by inadequate role clarification, orientation, training, and supervision.
- Excessive one-to-one paraprofessional support has been associated with inadvertent detrimental effects (e.g., unnecessary dependence, stigmatization, interference with peer interactions, interference with teacher involvement, less competent instruction).
- Virtually no student outcome data exist suggesting that students with disabilities do as well or better in school given paraprofessional supports.

The national response to these concerns has been to focus on strengthening paraprofessional supports, consistent with the Individuals with Disabilities Education Act Amendments of 1997, which included the requirement that paraprofessionals be appropriately trained and supervised. The Amendments, however, did not specify the type or amount of training required. Focusing on improvements in training and supervision is predicated on the assumption that we have identified the root of the problems associated with the appropriate educational support of students with disabilities in general education classes—namely, that paraprofessionals need to be more highly skilled to carry out the tasks that professionals ask of them.

Of course, improving the training and supervision of paraprofessionals is desirable and appropriate. Not surprisingly, there is general consensus in the literature that schools should hire the most qualified paraprofessionals possible, ensure that their roles are clear and appropriate, train them to carry out

those roles, and have their activities be directed and supervised by qualified professionals (Doyle, 2002; French, 2003a; Gerlach, 2001; Ghere, York-Barr, & Sommersness, 2002; IDEA Partnerships, 2001; Morgan & Ashbaker, 2001; Pickett & Gerlach, 2003; Wallace, Shin, Bartholomay, & Stahl, 2001). However, the limited available research base on paraprofessionals in special education suggests that such rudimentary steps to support the work of paraprofessionals have been the exception rather than the norm in American schools (Giangreco, Edelman, et al., 2001; Jones & Bender, 1993).

Paraprofessionals will continue to have valued and important roles in the provision of special education; we are concerned, however, that strengthening paraprofessional supports alone, without simultaneously examining their interactions with general and special education practices, would be akin to treating the symptoms of a problem rather than its causes. In other words, is the field's increasing and potentially inappropriate utilization of special education paraprofessionals merely symptomatic of root problems in general and special education? Will access to the general education curriculum and pursuit of individually determined goals for students with disabilities be appropriately supported if we simply strengthen the paraprofessional workforce? We believe these questions warrant closer scrutiny, particularly given concerns about whether the very model of extensive reliance on paraprofessionals is conceptually sound (Brown et al., 1999; Giangreco & Broer, 2003b; Giangreco, Broer, & Edelman, 1999; Mueller, 2002).

The current study explores these concerns by posing five interrelated research questions:

1. What percentage of time do special education paraprofessionals spend engaging in each of the following seven task categories: clerical support, supervision of students, personal care, behavior support, implementing instruction planned by professionals, engaging in self-directed activities, and "other"?
2. Does the percentage of time special education paraprofessionals spend engaging in task categories vary by type of assignment (i.e., individual vs. group)?
3. What percentage of time do special education teachers spend engaging in the following eight task categories: paperwork, collaboration, behavior support, instruction, planning, working with paraprofessionals, working with families, and "other"?
4. How do special education paraprofessionals rate their own experiences with a series of paraprofessional practices that have been identified in the literature as areas of concern (e.g., dependence, planning of instruction)?
5. How do teachers, special educators, administrators, and parents of children with disabilities rate a series of schoolwide educational practices associated with appropriate special education in inclusive settings that may contribute to reducing overreliance on and inappropriate utilization of paraprofessionals?

The data collected to explore these questions build on recent studies regarding paraprofessionals and fill gaps in the descriptive research on special education service delivery in inclusive schools. First, although several studies have documented the various roles of special education paraprofessionals in inclusive settings (Downing, Ryndak, & Clark, 2000; Giangreco, Broer, & Edelman, 2002; Minondo, Meyer, & Xin, 2001; Riggs & Mueller, 2001), most have not documented the percentage of time that paraprofessionals spend engaging in their various roles. None of the aforementioned studies examined whether the perception of paraprofessional time allotments was the same or different among paraprofessionals, special educators, and teachers, or if such time allotments varied by paraprofessional assignment. Second, existing studies have not explored how the time breakdowns of paraprofessionals compare with those of special educators in the same schools.

Third, although previous qualitative studies have identified a series of concerns about special education paraprofessional supports (Downing et al., 2000; Giangreco, Broer, & Edelman, 2001; Giangreco, Edelman, Luiselli, & MacFarland, 1997; Hemmingsson et al., 2003; Marks et al., 1999), those studies did not provide any relative sense of which areas are of most concern to paraprofessionals. Fourth, no existing studies have examined the status of the schoolwide educational practices included in this study that may contribute to reducing overreliance on, and inappropriate utilization of, paraprofessionals.

Paraprofessional issues do not exist in a vacuum. The data included in this study are important because they allow us to examine educational support issues within a broader context that includes the perspectives of paraprofessionals, along with those of special educators, teachers, administrators, and parents of children with disabilities. Because all of the data were collected from these five groups within 12 schools, we were provided with a unique opportunity to understand interrelated practices within schools.

Knowing more about how paraprofessionals and special educators use their time can help us understand existing resource allocation and assist in making deliberate decisions about which roles are best suited to different personnel. Knowing which paraprofessional practices of concern are most prevalent can assist in developing strategic plans of action. Identifying the perspectives of school personnel and families about general and special education practices can focus attention on strengthening various aspects of education, such as schoolwide supports, teacher and special educator working conditions, collaboration, resource reallocation, information sharing with families, and peer supports. By exploring the interrelated data sets in this study, we can begin to unravel and better understand how the roots of paraprofessional service delivery are intertwined with general and special educational practices. As a result, school personnel, families, and policymakers will be better positioned to make informed decisions about potential changes in policy and practice.

Method

Settings

This study was conducted in 12 public schools in Vermont: 7 elementary, 3 middle, and 2 central (grades K–12) schools. School populations ranged from 81 to more than 1,100 ($M = 452$; $SD = 295$), with an average class size of 19 ($SD = 2.57$). Seven of the schools were in rural locations, four were in small cities, and one was suburban. The minority student population was approximately 5%, and nearly 36% received free or reduced-price lunch.

The schools included an average of 97% of their students with disabilities in age-appropriate general education classes as their primary placement. The mean percentage of students on individualized education programs (IEPs) was 15%; another 4% were on 504 Plans, and 10% of students without disabilities were on educational support team plans for academic support.

All 12 schools had volunteered to participate in a grant-supported project to examine their utilization of paraprofessionals and explore alternative service delivery options for supporting students with disabilities in general education classes. The total number of paraprofessionals in these schools ranged from a low of 5 to a high of 79.5 Full-Time Equivalents (FTE). On average, 20% of the paraprofessionals were assigned to and funded by general education. The other 80% were assigned to and funded by special education; of those, on average, 50% were individually assigned to work with students one-to-one and 50% were assigned to support small groups of students. These schools employed an average of 1 special education paraprofessional for every 3.7 ($SD = 0.8$) students who qualified for special education services.

Study Participants

Data were collected from a total of 737 individuals. Respondents included 367 general education teachers, 153 special education paraprofessionals, 123 parents, 62 special educators, and 32 school administrators. Collectively, these individuals were involved in educating the full range of students with and without disabilities served in their schools. The general education teachers in this study spanned all grades and subject areas. Approximately 80% were women, and they averaged more than 17 years of experience ($SD = 9.8$).

Ninety-six percent of the special education paraprofessionals were women. They ranged in experience from first year on the job to 30 years of experience ($M = 6.4$, $SD = 6.1$). Fifty-two percent of the paraprofessionals had earned some level of college education (i.e., associate's, bachelor's, or master's degree); the remaining 48% were high school graduates. Fifty-four percent of the responding special education paraprofessionals ($n = 83$) were assigned to support individual students, while the remaining 46% ($n = 70$) supported small groups of students with disabilities. On average, each paraprofessional worked with more than three general education teachers ($M =$

3.43, $SD = 2.03$) and more than one special educator ($M = 1.43$, $SD = 2.08$).

All the parent respondents, including 108 mothers, 10 fathers, and 5 other legal guardians (e.g., grandparents), had a child with a disability who was receiving special education and paraprofessional support. The children of these parents spanned ages and disability categories. The sample included slightly more parents of female students (51%) than males (49%).

Ninety-five percent of the special educators in this sample were women ($n = 59$). Nearly 80% of the special educators functioned as consulting special educators. In this capacity they served a caseload of students across grades and classrooms. They provided instruction to students with disabilities, collaborated with classroom teachers, supervised paraprofessionals, and managed all other aspects of the IEP process. The remaining 20% of special educators served in a variety of capacities, such as resource room teachers or case managers who primarily managed the IEP process but did not provide much instruction to students. Fifty-six percent ($n = 18$) of the administrators were general education principals or assistant principals; the remaining 44% ($n = 14$) were special education administrators; 56% were women and 44% men.

Design, Procedure, and Data Collection

This study was of a descriptive, quantitative design based on questionnaires completed by the study participants. Data were collected during the 2002–2003 school year. Most of the questionnaires were distributed, completed, and collected at school faculty meetings. Questionnaires for some paraprofessionals and other school personnel not in attendance at the faculty meetings were left in their school mailboxes, along with self-addressed, postage-paid return envelopes. Each special education teacher was given a set of questionnaire packets to distribute to five parents of students with disabilities who were on their special education caseload and who received paraprofessional supports. Parent packets included a cover letter; questionnaire; and self-addressed, postage-paid return envelope so that their responses could be returned directly to the researcher team.

Different questionnaires were designed for the five different respondent groups, and each group was asked to provide a small amount of individually relevant demographic data (e.g., role, years of experience, level of education, caseload size and characteristics). Paraprofessionals were asked to indicate the percentage of time they spent in close proximity (within 3 ft.) to their assigned students with disabilities and the percentages of time they engaged in each of seven task categories: (a) providing clerical support (e.g., photocopying, attendance records); (b) supervising students (e.g., cafeteria, playground, bus duty); (c) assisting with personal care (e.g., bathroom support, dressing); (d) supplying behavior support; (e) implementing instruction planned and supervised by a teacher or special educator; (f) engaging in self-directed activities not planned and supervised by a teacher or special educator (e.g.,

planning lesson or activities, making adaptations or accommodations); and (g) other. Both teachers and special educators were asked to indicate the percentages of time that the special education paraprofessionals with whom they worked engaged in the same seven task categories. All three groups were instructed to ensure that their categories totaled 100%.

Special educators also were asked to indicate the percentage of time that they were engaged in each of eight task categories: (a) completing special education paperwork (e.g., notices, IEPs, eligibility evaluations, Medicaid); (b) collaborating with others (e.g., meetings, consultation with teachers); (c) providing behavior support; (d) engaging in instructional time with students with disabilities; (e) planning activities (e.g., lesson planning, making adaptations or accommodations); (f) working with paraprofessionals (e.g., training, supervising); (g) working with families (e.g., conferencing, phone calls); and (h) other. Special educators were instructed to ensure that the eight categories totaled 100%.

The remainder of the paraprofessional questionnaire included 17 statements designed to seek their perspectives on practices that have been identified in the descriptive research literature as areas of concern, though they were presented neutrally; that is, not identified to respondents as areas of concern. In reference to each statement they were asked to circle one response (*strongly disagree*, *disagree*, *agree*, *strongly agree*, *don't know*) "that most closely reflects your perspective about what DOES happen, rather than what you feel SHOULD happen."

All teachers, special educators, administrators (as the accountable professionals), and parents (as consumers) were asked to respond to 20 statements regarding schoolwide educational practices associated with providing special education in inclusive settings (Downing, 2002; McGregor & Vogelsberg, 1998; Villa & Thousand, 2000). These statements were different from those responded to by the paraprofessionals. Paraprofessionals were not asked to respond to these statements because they were neither the professionals accountable for these practices nor consumers. It has been posited that the effective implementation of these practices may contribute to reducing overreliance on and inappropriate utilization of paraprofessionals (Giangreco & Broer, 2003a). Wording of all 20 statements was phrased so that agreement responses would be consistent with positive practice. In reference to each statement, respondents were asked to circle one response (*strongly disagree*, *disagree*, *agree*, *strongly agree*, *don't know*) "that most closely reflects your perspective about what DOES happen, rather than what you feel SHOULD happen."

Data Analysis

Data were analyzed using SAS (SAS Institute, Inc., 1999–2001). One-way ANOVA and Scheffé post hoc analyses were used to explore differences between respondent groups on continuous variables (e.g., percentage of time on task categories). Intragroup differences between group and individual paraprofessionals were explored using *t* tests.

Chi-square analyses were used to explore overall differences between respondent groups on categorical variables, followed by pairwise comparisons between groups. In an effort to identify the most significant differences, the *strongly disagree* and *disagree* responses were collapsed into a *disagree* category, *agree* and *strongly agree* responses were collapsed into an *agree* category, and alpha levels were adjusted to control for experimentwise error. The *don't know* responses were excluded from chi-square analyses of the 17 paraprofessional statements because they represented only about 2% of the responses. Conversely, *don't know* responses were included in chi-square analyses of the schoolwide practices data because half of those statements had overall *don't know* rates exceeding 10%.

Findings

A total of 1,092 questionnaires were distributed, with an overall response rate of approximately 67% ($N = 737$). The highest response rates were from special educators (94%), administrators (91%), and teachers (87%); these were the groups who attended the faculty meetings where the questionnaires were distributed, completed, and collected. Sixty-four percent of the paraprofessionals completed their questionnaires; their attendance at faculty meetings varied from school to school. Parents had the lowest response rate, 37%; they were not in attendance at faculty meetings. Because it was up to the special educators to distribute the questionnaires to parents meeting established criteria, exactly how many of the 330 parent questionnaires were actually received by the parents is unclear. Therefore, the response rate data for parents presented here are a conservative estimate.

Paraprofessional Use of Time

Table 1 addresses Research Question 1 (What percentage of time do special education paraprofessionals spend engaging in

TABLE 1
Time Use of Special Education Paraprofessionals
Reported by Teachers, Paraprofessionals, and
Special Educators ($n = 419$)

Time task category	<i>M</i>	(<i>SD</i>)
% instruction planned by professionals	47.34	(29.09)
% behavior support	19.05	(23.04)
% self-directed	17.29	(21.20)
% supervision of students	6.84	(8.58)
% clerical	4.40	(6.71)
% personal care	3.40	(7.49)
% other	1.26	(7.44)

the seven task categories?). Table 1 presents data from 68% ($n = 419$) of respondents from the three groups asked to report on the use of time by special education paraprofessionals, including 86% of the paraprofessionals ($n = 132$), 74% of the special educators ($n = 46$), and 66% of the teachers ($n = 241$). Data from other study participants in these three groups were excluded because their percentages did not equal 100% or they did not complete this section on their questionnaire. Written comments indicated that many of the teachers and special educators who did not complete this section of their questionnaire did not feel they knew enough about what the paraprofessionals were doing to comment with confidence on their use of time; exclusion of paraprofessional data was primarily due to totals' not adding up to 100%.

As shown in Table 1, special education paraprofessionals reportedly spent an average of 47% of their time providing instruction that was planned by a professional, about 19% providing behavior supports, and over 17% engaged in self-directed activities. Standard deviations in these three categories indicate a wide range of responses. Each of the other four task categories accounted for between 1% and 7% of the paraprofessionals' time. These data are presented aggregately because the responses across groups (paraprofessionals, special educators, teachers) were very similar. Of the 21 possible pairwise comparisons of the three respondent groups on the seven time task categories, 20 were *not* significantly different at $p < .01$. The mean percentage of time that special education paraprofessionals engaged in clerical tasks did differ between two of the groups, $F(2, 419) = 7.69$: Special education paraprofessionals reported spending about 6% ($SD = 8.28$) of their time on clerical tasks, whereas teachers reported that paraprofessionals spent about 3% ($SD = 5.66$) of their time on clerical tasks. Though a small effect size (0.44) was noted, this minor

percentage difference suggests no practical difference or implications.

Table 2 addresses Research Question 2 (Does the percentage of time special education paraprofessionals spend engaging in task categories vary by type of assignment?). As shown in Table 2, an intragroup comparison of responses based on the assignment of special education paraprofessionals as either individual (i.e., assigned to support an individual student with a disability) or group (i.e., assigned to support a small group of students with disabilities) revealed some similarities and a series of modest effect size differences. Fifty-six percent ($n = 74$) of the paraprofessionals who provided usable responses for this analysis of use of time were individual paraprofessionals who primarily supported students with low-incidence disabilities (e.g., autism, intellectual disabilities, multiple disabilities); the remaining 44% ($n = 58$) were group paraprofessionals who primarily supported students with high-incidence disabilities (e.g., learning disabilities). Similar patterns of use of time were identified for supervision (7%) and other (1%) tasks. Individual paraprofessionals reported spending more time self-directed (24%) than did group paraprofessionals (18%), though this difference was not statistically significant.

The remaining four time task categories were statistically different with small to medium effect sizes. Given the fact that many individual paraprofessionals often are assigned to support students whose disabilities are associated with personal care needs (e.g., multiple disabilities) or behavioral supports (e.g., autism, emotional disturbance), it is not surprising that they reported spending more time providing personal care and behavior supports to students with disabilities than did paraprofessionals assigned to groups, who more frequently support students with high-incidence disabilities (e.g., learning dis-

TABLE 2
Differences in Percentage of Time Use Reported by Special Education Paraprofessionals by Assignment

Time task category	Group paraprofessionals ^a		Individual paraprofessionals ^b		t	Effect size
	M	(SD)	M	(SD)		
% instruction planned by professionals	49.72	(26.04)	37.43	(27.11)	2.63**	0.46
% behavior support	13.60	(18.33)	21.58	(23.38)	-2.13*	0.37
% self-directed	18.37	(22.24)	24.39	(22.78)	-1.52	0.27
% supervision of students	7.37	(7.71)	6.59	(7.47)	0.59	0.10
% clerical	8.77	(9.67)	4.14	(6.36)	3.30**	0.58
% personal care	0.72	(2.99)	5.13	(12.00)	-2.73**	0.47
% other	1.32	(4.91)	0.56	(3.05)	1.09	0.19

Note. $df = 130$.

^a $n = 58$. ^b $n = 74$.

* $p < .05$. ** $p < .01$.

abilities). Group paraprofessionals reported spending a greater percentage of their time—nearly 9%—on clerical tasks, compared to about 4% for individual paraprofessionals. Arguably, the difference of most practical significance between the reported use of time by individual and group paraprofessionals was in reference to instruction: Individual paraprofessionals reported spending significantly less time on instruction planned by a professional (37%) than did group paraprofessionals (50%).

Overall, paraprofessionals ($n = 140$) reported spending approximately 86% ($SD = 15.8$) of their time in close proximity (within 3 ft.) to their assigned students with disabilities. Though not significantly different, individual paraprofessionals ($n = 78$) reported spending slightly more time ($M = 88%$, $SD = 12.6$) in close proximity to their assigned students than did group paraprofessionals ($n = 62$, $M = 83%$, $SD = 18.7$).

Special Educators' Use of Time

The special educators in this study reported that their caseloads averaged slightly more than 14 ($SD = 5.9$) students with disabilities receiving special education, ranging from 6 to 30. Although students with disabilities receiving special education constituted the bulk of their caseload, most of these special educators were also assigned to support students with disabilities on 504 plans (not eligible to receive special education) and students without disabilities on educational support team plans. When these three student groups were combined, the average special educator's caseload was 22 ($SD = 7.4$), ranging from 7 to 34. Special educators each were responsible for directing the work of an average of more than 4 paraprofessionals ($M = 4.21$, $SD = 2.98$)—and in some cases as many as 14.

Table 3 addresses Research Question 3 (What percentage of time do special education teachers spend engaging in the eight task categories?). Table 3 includes data from 85% ($n = 54$) of the special educators who participated in this study. Nearly all excluded cases were attributed to the sums of special educators' time task categories exceeding 100% with written indications that they spent extensive time on paperwork during nonschool hours. Therefore, the 24% of time reported for the paperwork category is believed to be conservatively low, and percentages in the other categories may be correspondingly inflated.

Special educators reported spending more of their time on instruction than any other single time task category—about 34%. The sizeable standard deviation suggests a broad range of responses. In fact, over 72% ($n = 39$) of the special educators reported spending less than half of their time on instruction; only about 5% ($n = 3$) reported spending 65% or more of their time on instruction. After instruction and paperwork, the remaining 45% of the special educators' time was split across the six remaining time task categories, with no one area exceeding 10% of their time.

Paraprofessional Responses Regarding Educational Practices

Table 4 addresses Research Question 4 (How do special education paraprofessionals rate their own experiences on a series of paraprofessional practices that have been identified in the literature as areas of concern?). Following the first two entries in Table 4, which address paraprofessionals' levels of concern about proximity and dependence, the remaining 15 items are arranged in descending order; those with agreement/disagreement responses least consistent with positive practice are listed first. An analysis of the paraprofessionals' responses by service delivery assignment (individual or group) indicated no significant differences on 16 of the 17 items. The lone exception related to whether paraprofessionals, as compared with teachers and special educators, have as much or more frequent communication with parents of students with disabilities, $\chi^2(1, N = 135) = 16.79$, $p < .01$ (item 8). Nearly 38% of individual paraprofessionals indicated that they did have as much or more communication with parents, compared to about 9% of group paraprofessionals.

Less than 15% of the responding paraprofessionals indicated that they were concerned that their close proximity might be unnecessary or interfere with teacher and peer interactions (item 1), though nearly 37% were concerned that the students with disabilities they worked with were unnecessarily dependent on paraprofessionals (item 7). These somewhat disparate responses are interesting in light of the fact that paraprofessionals reported spending an average of nearly 86% of their time in close proximity to their assigned students with disabilities and other findings presented in Table 4. For example, over 46% of the paraprofessionals reported that some of their students with disabilities communicated, via their language or behavior, that they found paraprofessional supports unwanted (item 13). Nearly 46% of the paraprofessionals indicated that students with disabilities thought of them as among their primary "friends" at school, rather than their

TABLE 3
Self-Reported Time Use of Special Educators ($n = 54$)

Time task category	M	(SD)
% instruction of students	34.16	(19.26)
% paperwork	24.27	(13.43)
% collaboration	10.22	(5.37)
% planning	7.90	(4.11)
% behavior support	7.81	(7.62)
% working with paraprofessionals	7.05	(4.96)
% working with families	6.07	(4.09)
% other	0.66	(2.92)

TABLE 4
Paraprofessionals' Agreement and Disagreement

Item no.	Statement regarding educational practices	Disagree or strongly disagree		Agree or strongly agree	
		%	(n)	%	(n)
<i>Items regarding level of concern of paraprofessionals:</i>					
1	I am concerned that my close proximity to students with disabilities may be unnecessary or may be interfering with teacher or peer interactions. (c)	85.42	(123)	14.58	(21)
7	I worry that students with disabilities I work with are unnecessarily dependent on me or other paraprofessionals. (c)	63.19	(91)	36.81	(53)
<i>Items where agreement levels are consistent or inconsistent with positive practices:</i>					
6	As a paraprofessional I make curricular or instructional decisions or make adaptations to activities without always having oversight by the teacher or special educator. (-)	30.67	(46)	69.33	(104)
10	I make many decisions on my own. For example, during a teacher-led lesson I feel free to remove a student with a disability from the lesson if I think it is not appropriate or to change to a different activity, without needing to interrupt the teacher to ask if it is OK. (-)	31.91	(45)	68.09	(96)
17	At progress reporting time, teachers and special educators rely on me to provide information because I know more about the student's current performance. (-)	46.53	(67)	53.47	(77)
13	Some students with disabilities communicate, through their language or behavior, that they find the paraprofessional support offered to them unwanted. (-)	53.85	(77)	46.15	(66)
12	Students with disabilities think of me or other paraprofessionals as some of their primary "friends" at school, rather than their classmates. (-)	54.29	(76)	45.71	(64)
4	I (or other paraprofessionals) provide most of the instruction that the students with disabilities receive (rather than the majority being provided by teachers or special educators). (-)	60.14	(86)	39.86	(57)
11	Students with disabilities spend more than half of their social time at school (e.g., lunch, playground, free-time, hall passing) with me or other paraprofessionals. (-)	63.50	(87)	36.50	(50)
2	When I work with students who have disabilities, we are separated from the activities of the rest of the class (e.g., we are located at the back or side of the classroom). (-)	64.08	(91)	35.92	(51)
5	The classroom teachers I work with are involved with students with disabilities who are placed in their classes (i.e., spend as much time teaching them as students without disabilities). (+)	34.06	(47)	65.94	(91)
8	I have as much or more frequent communication with the parents of the students with disabilities than does the classroom teacher or special educator. (-)	75.51	(111)	24.49	(36)
3	I have been provided with explicit information about the IEP goals for students with disabilities and am sure about exactly which parts of the general education curriculum the student is expected to learn. (+)	21.53	(31)	78.47	(113)
14	I am asked to provide academic support to students in subjects where I feel I am either underskilled, unskilled, or uncomfortable (e.g., math, foreign language). (-)	83.11	(123)	16.89	(25)
9	When I am absent from school (e.g., because of illness), the result is either (a) a "lost day" at school for my students with disabilities because others don't know what to do (e.g., instruction, personal care, behavior support); (b) that the child stays home from school; or (c) that the parent is asked to be the substitute paraprofessional. (-)	84.44	(114)	15.56	(21)
15	I am asked to provide other support to students in areas where I feel I am either underskilled, unskilled, or uncomfortable (e.g., mobility, personal care, behavior support). (-)	85.23	(127)	14.77	(22)
16	Teachers and special educators spend time doing clerical tasks (e.g., photocopying) while I am teaching students with disabilities. (-)	85.71	(120)	14.29	(20)

Note. (c) = Worded to discern level of concern; (+) = Worded so higher agreement was consistent with positive practice; (-) = Worded so higher agreement was inconsistent with positive practice.

classmates (item 12), and more than 36% reported that students with disabilities spent more than half of their social time at school (e.g., lunch, playground, free-time) with paraprofessionals (item 11).

The data suggest that a substantial percentage of paraprofessionals perceive that they function in somewhat separate, primary, instructional roles that often supercede those of the certified professional educators. Nearly 36% of the paraprofessionals reported that they and the students with disabilities they supported were separate, placed at the side or back of the classroom, from the activities of the class (item 2). Nearly 40% reported providing most of the instruction to students with disabilities, rather than the majority being provided by teachers and special educators (item 4). Over 53% of paraprofessionals indicated that at progress-reporting time, teachers and special educators relied on them to provide information because they knew more about the students' current performance levels than the professionals did (item 17). Most notably, nearly 70% of the paraprofessionals reported that they functioned with a high level of autonomy, by making curricular, instructional, and activity-participation decisions without always having professional oversight (items 6 and 10). Though the remaining seven items on Table 4 depict agreement responses about what actually happens in these schools that reflects higher levels of congruence with positive practices, ranging from 66% to 86%, it remains uncertain as to whether these responses present sufficient concern to warrant action in schools.

Educational Practices Effecting Inclusive Service Delivery and Paraprofessional Utilization

Table 5 addresses Research Question 5 (How do teachers, special educators, administrators, and parents of children with disabilities rate a series of [20] schoolwide educational practices associated with appropriate special education in inclusive settings that may contribute to reducing overreliance on and inappropriate utilization of paraprofessionals?). Table 5 includes responses from 584 teachers, parents, special educators, and administrators. Statements are arranged in descending order, with those having the highest percentages of overall agreement listed first. Because there are no agreed-upon standards for what level of agreement is acceptable or what level is low enough to warrant concern, the reader is encouraged to consider his or her own thresholds of concern when interpreting the data from Table 5.

Two primary patterns of agreement were identified among groups: *same* and *opposite*. *Same* patterns of agreement refers to statements for which, for all groups, the percentage of agreement was higher than their percentage of disagreement. This pattern exclusively reflected differences in the magnitude of agreement between groups while following the same pattern. *Opposite* patterns of agreement refers to statements for which one or more groups responded with a higher percentage of agreement than disagreement, whereas one or more

other groups responded with a higher percentage of disagreement than agreement. In some cases, agreement percentages below 50% were still higher than disagreement percentages; this was attributed to cases in which the percentage of *don't know* responses was high. The following three sections summarize the data from Table 5 about (a) *don't know* responses, (b) *same* patterns of agreement, and (c) *opposite* patterns of agreement.

"Don't Know" Responses

Eight of the first 10 statements (those with relatively higher agreement levels) had overall *don't know* rates below 10%, and 2 statements had rates slightly exceeding 10% (items 11 and 2). This was the mirror-opposite of the second 10 statements (those with relatively lower agreement levels), where 8 had overall *don't know* rates ranging from 10% to 29% (items 14, 17, 13, 12, 19, 16, 15, and 9). Over 95% ($n = 1,300$) of all *don't know* responses across the 20 items were attributed to parents ($n = 288$) and teachers ($n = 1,012$). On average, both special educators and school administrators responded *don't know* 3% of the time, while parent and teacher rates were approximately 12% and 14%, respectively.

"Same" Patterns of Agreement

Twelve of the 14 statements with the highest levels of overall agreement followed the *same* pattern, a higher percentage of agreements than disagreements (see Table 5), ranging from a low of 58% agreement (item 13) to a high of 94% (item 1). As shown in the far-right column of Table 5 (χ^2), no significant differences existed in the mean percentage of agreement among the groups on half of those variables. Parents and the professional groups (i.e., teachers, special educators, and administrators) responded very similarly pertaining to whether

1. students with disabilities were educated in the school they would attend if not disabled (item 1);
2. teachers had positive attitudes about including students with a full range of disabilities (item 5);
3. classmates with and without disabilities had opportunities to provide natural supports to each other (item 20);
4. special educators had knowledge of the general education curriculum (item 10);
5. the school had a well-functioning support system (item 3); and
6. teachers and special educators were familiar enough with the various educational and support needs of students with disabilities that the temporary absence of a paraprofessional can occur without major disruption to students (item 14).

Though the responses of parents and professionals were similar on the aforementioned variables, their levels of agreement ranged from a high of approximately 94% (item 1) to a low of 60% (item 14).

TABLE 5
Overall Agreement Levels Regarding Schoolwide Practices Reported by Teachers, Parents,
Special Educators, and Administrators

Item no.	Statement regarding schoolwide practices (range of agreement when groups differ)	n	Don't know		Disagree or strongly disagree		Agree or strongly agree		Pattern of group agreement response	χ^2 (df = 6)
			%	(n)	%	(n)	%	(n)		
1	Students with disabilities are educated in the school they would attend if they were not disabled.	571	3.68	(2)	2.28	(13)	94.05	(537)	Same	
4	Students with disabilities are physically situated within classrooms to facilitate their participation with classmates and instruction by the classroom teacher (e.g., not isolated in the back or side of the room). <i>Range of agreement: 79% of parents–92% of teachers</i>	577	2.95	(17)	9.53	(55)	87.52	(505)	Same	25.17**
18	Parents and students with disabilities (when appropriate) participate as team members in developing and implementing the IEP. <i>Range of agreement: 85% of teachers–97% of administrators</i>	580	7.93	(46)	4.66	(27)	87.41	(507)	Same	24.30**
5	Teachers in our school have positive attitudes about including students with a full range of disabilities as members of their classroom community.	573	2.79	(16)	12.39	(71)	84.82	(486)	Same	
20	Classmates with and without disabilities have opportunities to provide natural supports to each other or cross-age peers.	581	8.09	(47)	10.15	(59)	81.76	(475)	Same	
10	Special educators have the knowledge of the general education curriculum and standards and the skills to successfully individualize the curriculum for students with disabilities.	573	9.25	(53)	13.79	(79)	76.96	(441)	Same	
3	The school has a well-functioning schoolwide support system to provide needed assistance to students with and without disabilities.	578	2.25	(13)	23.88	(138)	73.88	(427)	Same	
11	Special educators have the knowledge and skills to successfully differentiate instruction within the context of class activities for mixed-ability groups that include students with and without disabilities. <i>Range of agreement: 69% of teachers–92% of special educators</i>	573	13.09	(75)	14.14	(81)	72.77	(417)	Same	26.03**
6	Teachers think it is their role to provide instruction for students with a full range of disabilities who are placed in their classrooms, rather than primarily serving as hosts. <i>Range of agreement: 50% of special educators–79% of teachers</i>	578	7.27	(42)	20.42	(118)	72.32	(418)	Same	60.78**
2	Students are placed in chronological-age–appropriate general education classes, and the number of students with disabilities in those classes is naturally proportional (e.g., no more than 10%–15% have disabilities). <i>Range of agreement: 66% of parents–97% of administrators</i>	574	10.10	(58)	20.38	(117)	69.51	(399)	Same	48.08**
7	Teachers have the knowledge and skills to successfully differentiate instruction for mixed ability groups that include students with and without disabilities, within the context of typical class activities. <i>Range of agreement: 31% of administrators–66% of parents</i>	570	8.07	(46)	30.70	(175)	61.23	(349)	Opposite pa, te ↑ ad, se ↓	33.98**

(table continues)

(Table 5 continued)

Item no.	Statement regarding schoolwide practices (range of agreement when groups differ)	n	Don't know		Disagree or strongly disagree		Agree or strongly agree		Pattern of group agreement response	χ^2 (df = 6)
			%	(n)	%	(n)	%	(n)		
14	Teachers and special educators are familiar enough with the various educational and support needs of the students with disabilities in the classroom that the temporary absence of a paraprofessional can occur without major disruption to students with or without disabilities.	569	10.54	(60)	29.00	(165)	60.46	(344)	Same	
17	Families are well informed about information the school considers to determine whether paraprofessional supports should be included in their child's IEP. <i>Range of agreement: 44% of administrators–67% of parents</i>	580	20.00	(116)	20.86	(121)	59.14	(201)	Opposite te, se, pa ↑ ad ↓	69.72**
13	Teachers and special educators are familiar enough with all the students in the classroom, the curriculum, and instructional approaches that the temporary exchange of primary roles can occur without major disruption to students with or without disabilities. <i>Range of agreement: 53% of special educators–67% of parents</i>	573	10.47	(60)	31.41	(180)	58.12	(333)	Same	27.02**
12	Teachers and special educators schedule time to work with students who have disabilities and collaborate with each other by assigning paraprofessionals to non-instructional support tasks (e.g., clerical, attendance, lunch, playground supervision) and professionally planned and supported instruction. (n = 563) <i>Range of agreement: 29% of administrators–64% of parents</i>	563	16.34	(92)	33.04	(186)	50.62	(285)	Opposite te, se, pa ↑ ad ↓	33.58**
19	Students with and without disabilities (when age-appropriate) are actively involved in making decisions about their own supports in schools. <i>Range of agreement: 44% of administrators–65% of special educators</i>	572	24.48	(140)	26.75	(153)	48.78	(279)	Opposite te, pa, se ↑ ad ↓	30.74**
8	Teachers have working conditions (e.g., class size, class composition, materials, supports) that facilitate including and instructing students with a full range of disabilities in their classrooms. <i>Range of agreement: 38% of teachers–77% of administrators</i>	570	5.96	(34)	48.42	(276)	45.61	(260)	Opposite pa, ad ↑ te, se ↓	50.68**
16	Families are well informed about the potential benefits and drawbacks of providing paraprofessional supports. <i>Range of agreement: 26% of administrators–52% of parents</i>	576	26.56	(153)	32.81	(189)	40.63	(234)	Opposite te, se, pa ↑ ad ↓	79.87**
15	Families are well informed about how the school defines appropriate and potentially inappropriate roles of paraprofessionals. <i>Range of agreement: 19% of administrators–46% of parents</i>	575	29.22	(168)	35.83	(206)	34.96	(201)	Opposite te, pa ↑ ad, se ↓	51.79**
9	Special education teachers have working conditions that facilitate individualized special education for students on their caseloads (e.g., manageable caseload size, caseload composition, materials, manageable number of paraprofessionals to supervise). <i>Range of agreement: 24% of teachers–69% of administrators</i>	572	18.01	(103)	50.52	(289)	31.47	(180)	Opposite ad ↑ te, se, pa ↓	59.79**

Note. ↑ = group's % of agreement was higher than their % of disagreement; ↓ = group's % of disagreement was higher than their % of agreement; underlining = the group's agreement was below 50%; te = teachers; pa = parents; se = special educators; ad = administrators.

**p < .01.

Significant intergroup differences were identified on six other statements where the pattern of agreement remained the *same* (i.e., all groups reported higher levels of agreement than disagreement), with F values ranging from 24.30 to 60.78. Whereas 97% of the administrators agreed that parents and students with disabilities participated as team members in developing and implementing the IEP, 12% fewer teachers (85%) agreed (item 18). Ninety-two percent of teachers agreed that students with disabilities were physically situated within the classroom to facilitate their participation with classmates and instruction by the teacher; 13% fewer parents (79%) agreed (item 4). Whereas 92% of special educators agreed that they had the knowledge and skills to successfully differentiate instruction for mixed-ability groups that included students with and without disabilities, 23% fewer teachers (69%) and 20% fewer administrators (72%) agreed (item 11). Sixty-seven percent of responding parents agreed that teachers and special educators were familiar enough with all the students in the classroom, the curriculum, and the instructional approaches to temporarily exchange primary roles without major disruptions; 14% fewer special educators (53%) and 12% fewer teachers (55%) agreed (item 13).

As noted on Table 5, the two largest significant differences that followed the *same* pattern of agreement (i.e., all groups reported higher levels of agreement than disagreement) highlighted substantial differences between the responses of parents and administrators (item 2), and special educators and teachers (item 6). Specifically, 97% of the administrators agreed that students with disabilities were placed in chronological-age-appropriate general education classes and that the number of students with disabilities in those classes was naturally proportional (e.g., no more than 10% to 15% had disabilities), whereas only 66% of the parents agreed (item 2). A small number of written comments on returned questionnaires suggest that item 2 is difficult to interpret accurately because although it is one statement, it includes two distinct parts: (a) chronological-age-appropriate placement and (b) natural proportion of the numbers of students with and without disabilities in a class. All written comments related to this issue (there were only a few) indicated that it was the lack-of-natural-proportion aspect of the statement, rather than chronological age appropriateness, that prompted respondents to disagree. Insufficient data are available to state with certainty whether one or both parts of the statement were of concern for those who indicated disagreement with item 2. Furthermore, 79% of teachers agreed that teachers think it is their role to provide instruction for students with a full range of disabilities who are placed in their classrooms, rather than primarily to serve as a host (item 6). Yet, only 50% of the special educators and 53% of administrators agreed with that statement.

“Opposite” Patterns of Agreement

As depicted in Table 5, 8 of the 10 statements with the lowest overall levels of agreement had *opposite* patterns of agree-

ment among groups (i.e., one or more groups responded with a higher percentage of agreement than disagreement, while one or more other groups responded with a higher percentage of disagreement than agreement). All eight variables had significant differences, with F values ranging from 30.74 (item 19) to 79.87 (item 16). The five statements with the lowest overall levels of agreement were below 50%, ranging from approximately 31% to 49%. Those five items represent practices considered crucial to effective education, involving the working conditions of special and general education teachers (items 8 and 9), the extent to which families are well informed (items 15 and 16), and self-determination (item 19). It is noteworthy that in reference to all eight statements with *opposite* patterns of agreement, administrators’ and teachers’ responses had *opposite* patterns of agreement.

Five of the eight statements with *opposite* patterns of agreement (items 17, 12, 19, 16, and 9) indicated that the responses of administrators exclusively were the opposite of those of the other three groups (parents, teachers, and special educators). In four of the five cases, administrators had lower levels of agreement than disagreement, whereas teachers, special educators, and parents reported higher levels of agreement than disagreement. Specifically, in reference to whether (a) students with and without disabilities were actively involved in making decisions about their own supports (item 19), (b) teachers and special educators scheduled time to work with students who had disabilities and collaborated with each other (item 12), (c) families were well informed about information the school considered to determine whether paraprofessional supports should be included in their child’s IEP (item 17), and (d) families were well informed about the potential benefits and drawbacks of providing paraprofessional supports (item 16), teachers, special educators, and parents all reported levels of agreement higher than their levels of disagreement, where administrator responses followed the *opposite* pattern (higher levels of disagreement than agreement). It should be noted that in reference to three statements (items 12, 19, and 16), even though a group’s percentage of agreement was higher than its percentage of disagreement, the agreement levels were below 50%. This occurred in five of nine possible instances across these three variables; this is attributed to the high percentage of *don’t know* responses for these variables (see underlined group-name abbreviations in Table 5). In the fifth case in which administrators had an *opposite* pattern of response, 69% of administrators agreed that special educators had working conditions that facilitated individualized special education for students on their caseloads (item 9). Conversely, only 24% of teachers, 33% of special educators, and 43% of parents agreed that special educators had such favorable working conditions.

Three other statements indicated *opposite* patterns of responding. Sixty-five percent of teachers and 66% of parents agreed that teachers had the knowledge and skills to differentiate instruction for mixed-ability groups that included students with and without disabilities (item 7), whereas only 31% of administrators and 45% of special educators agreed. Seventy-

seven percent of administrators and 62% of parents agreed that teachers had working conditions that facilitated including and instructing students with a full range of disabilities in their classrooms (item 8). Opposite responses to the same statement were reported by teachers and special educators, who reported 38% and 43% levels of agreement, respectively. Last, in reference to whether families were well informed about how the school defined appropriate and potentially inappropriate roles of paraprofessionals (item 15), teachers and parents reported higher levels of agreement—33% and 46%, respectively—than disagreement. Conversely, administrators and special educators reported lower levels of agreement—19% and 34%, respectively—than disagreement. In reference to items 15 and 16, all groups' agreement levels were below 50%, due in part to the high percentage of *don't know* responses.

Discussion

This study's findings clearly highlight a series of issues and practices of interest to school personnel and parents that have an impact on the education of students with disabilities in general education classrooms. Demographic data and time use of paraprofessionals and special educators reveal questionable, if not surprising, patterns. These data indicate that, on average, special educators spend a significantly smaller percentage of their time on instruction than do the special education paraprofessionals they supervise. That finding, combined with the fact there were more than 4 times as many special education paraprofessionals as special education teachers in the schools in this study, reveals that many students with disabilities are getting a substantial amount of their instruction from paraprofessionals.

It is interesting that the fact that individual paraprofessionals spend less time providing instruction than do group paraprofessionals is potentially the most counterintuitive finding regarding use of time in this study. Presumably, individual paraprofessionals are assigned to provide intensive, one-to-one instructional support for students with more severe disabilities. Yet, the data indicate that not only do individual paraprofessionals spend less time instructing students with disabilities but they also spend nearly a quarter of their time self-directed. This raises concerns about whether students who are assigned individual paraprofessional support are getting competent instruction, and enough of it. This should not be surprising considering that, on average, each special education paraprofessional might expect to receive less than 2% of a special educator's time in training, supervision, or other professional direction. This 2% figure is based on the demographic data indicating that each special educator oversees about four paraprofessionals and reports spending only about 7% of his or her time working with paraprofessionals (e.g., training, supervising).

Is special education service delivery that relies extensively on paraprofessionals to support the education of students with disabilities in general education classes what the education

community wants to perpetuate and extend? There are competing perspectives in the literature on this issue. Some authors have suggested that extensive utilization of paraprofessionals is desirable and requires a shift in the roles of certified educators to those of "delegator, planner, director, monitor, coach, and program manager" (French, 1999, p. 70). In this manager-style model, paraprofessionals teach more and are supported to become increasingly skilled in instruction, while special educators teach less and become increasingly skilled in management.

Conversely, others have argued that the specialized curricular and instructional needs of students with disabilities who are placed in general education classrooms, especially those with more severe disabilities, require ongoing access to the most highly skilled, creative, and competent professionals (Brown et al., 1999). In this same vein, Giangreco (2003) has questioned whether extensive reliance on paraprofessionals to educate students with disabilities is nothing short of a double standard that simply would not be considered acceptable if it were applied to students without disabilities. This perspective has taken on added meaning given the recent national emphasis in the No Child Left Behind Act of 2001 on ensuring that public school students have access to "highly qualified teachers."

This study's data on special educator caseload size/configuration, paperwork burden, and relatively small percentage of time spent in instruction are consistent with the findings of the *Bright Futures* report (Kozleski, Mainzer, & Deshler, 2000), which highlighted these factors as some of the key reasons special educators identify for leaving the field. Like other teachers, special educators want to spend their time working with students rather than pushing paper or directing other adults.

We need to consider whether personnel's use of time matches their skills and training. For example, special educators in the study conservatively reported spending about 5½ times more time on paperwork than special education paraprofessionals spent on clerical tasks. Granted, some of those paperwork tasks do require professional skills (e.g., writing IEPs), but not all do. Does it make sense that special educators would be asked to support a larger caseload of students (22), all with some sort of special need, than general education teachers in these same schools, who have an average class size of 19? Keep in mind that in addition to having more students with varying disability characteristics, the work of these special educators typically was spread across multiple teachers, paraprofessionals, and grade levels.

It is particularly noteworthy that several responses of administrators were the opposite of other groups', especially teachers. Any time the people responsible for allocating resources and the people delivering the services differ as substantially as documented in the present findings, it is cause for further exploration and communication. This raises vital issues around developing shared frameworks, expectations, and rationales for the allocation of training and personnel resources.

Consider these data in light of the fact that the educational practice statement with the lowest overall level of agreement (31%) related to whether special educators had working conditions to facilitate individualized special education for the students on their caseloads (see Table 5, item 9). Concerns about the working conditions of general education teachers were not far behind, with an overall agreement percentage below 46% (see Table 5, item 8). Recently, the working conditions of professional educators have become a major point of discussion and action in England. The Education Act of 2002 includes provisions to ensure that teachers have working conditions that allow them to focus on teaching (School Teachers' Pay and Conditions Document, 2003). Under this new legislation teachers cannot routinely be required to undertake administrative and clerical tasks that do not require the expertise of a qualified teacher (e.g., filing, maintaining attendance records, collecting money, collating reports, proctoring exams, photocopying).

Paraprofessionals' relative lack of concern (15%) about whether their proximity may be unnecessary or interfere with teacher or peer interactions (see Table 4, item 31) is among the most intriguing, and potentially internally inconsistent, data points in this study. Special education paraprofessionals reported spending about 86% of their time within 3 ft. of their assigned students with disabilities. It is hard to imagine that many, if any, students *without* disabilities spend anywhere close to 86% of their school day within 3 ft. of an adult. That level of adult proximity represents a startlingly atypical experience for most students in American schools. From a student's perspective, imagine how having an adult (metaphorically) attached at the hip might affect your social relationships in academic groups, on the playground, in hallways between classes, or in the cafeteria. Part of the socialization that goes on in schools is learning how to negotiate the social and academic environment without constant adult involvement, and developing an increasing sense of autonomy and interdependence with classmates as students progress through the grades.

Participants in earlier research acknowledged that although

some level of close proximity between students with disabilities and instructional assistants was desirable and sometimes essential (e.g., tactile signing, instructional interactions, health management), they also recognized that unnecessary and excessive adult proximity was not always necessary and could be detrimental. (Giangreco et al., 1997, pp. 9–10)

Recent research has offered alternative perspectives that highlight the positive aspects of proximity. An experimental, single-subject study documented that three students with disabilities were more academically engaged when their paraprofessionals were closer (within 2 ft.) than when they were more distant (more than 5 ft. away; Werts, Zigmond, & Leeper, 2001). Although this finding is logical, the design of the study seems based on the premise that the use of paraprofessionals is a desirable and expected method for supporting these stu-

dents in their general education classrooms; the role of the classroom teachers with these students was unspecified. The study's limitations include a concern by its authors that these students were accustomed to working with paraprofessionals. Though presented as a study supportive of paraprofessional proximity, a reasonable alternative explanation could be that the results verified the dependence of these three students on paraprofessionals and were accustomed to receiving this support. If they were dependent, it would not be surprising that their level of academic engagement was lower when they were separated from their customary supports. Nothing was offered about providing alternative methods of support (e.g., peers, teacher) or systematically fading supports.

A study by Robertson, Chamberlain, and Kasari (2003) reported that the presence of paraprofessionals did not adversely influence teacher–student relationships for 12 students with autism, and that it helped teachers develop better relationships with these students. Though it was encouraging to read about the teachers' positive attitudes, it was difficult to reconcile how these attitudes toward their students with autism translated into higher levels of teacher engagement or more effective education, because the authors reported that two thirds of the paraprofessionals were assigned to students with autism for the entire day.

The positive relational findings described by Robertson et al. (2003) are consistent with the finding from the current study that nearly 85% of respondents agreed that teachers have positive attitudes about including students with a full range of disabilities as members of their classroom communities (see Table 5, item 5). It is the current study participants' responses to related statements that provide a more complete picture. For example, the percentage of agreement dropped to 72% when respondents were queried about whether teachers think it is their role to provide instruction for students with a full range of disabilities, rather than primarily serving as a host (see Table 5, item 6). The agreement dropped further, to 61%, in reference to whether teachers have the knowledge and skills to differentiate instruction for mixed-ability groups that include students with disabilities (see Table 5, item 7). When respondents were asked whether teachers have the working conditions that facilitate including and instructing students with a full range of disabilities in their classrooms (see Table 5, item 8), the agreement level bottomed out on this strand of statements, at about 46%. Although positive teacher attitudes about their relationships with students who have disabilities is an encouraging foundational step, it is of limited value if students with disabilities remain separated within the classroom, paraprofessionals continue to provide the bulk of their instruction, and professional educators believe that they have skills or working conditions that are inadequate for successfully including all students.

Exploration of data across respondent groups also reveals potentially important differences and raises questions about why different groups perceive the same phenomena differently. For example, approximately 64% of paraprofessionals reported

that they and the students with disabilities they supported were separated from the activities of the classroom and were physically located at the back or side of the classroom (see Table 4, item 2). Yet, 92% of the classroom teachers agreed that students with disabilities are physically situated in the classroom to facilitate their participation in instruction and with classmates (see Table 5, item 4). Resolution of such discrepancies may lie in communication among the differing groups in an effort to better understand each other's perspectives and in direct observational time studies with agreed-upon operational definitions.

Some of the study's findings are encouraging. For example, over 94% of the participants agreed that students with disabilities are educated in the schools they would attend if not disabled (see Table 5, item 1). In considering the more encouraging findings in Tables 4 and 5, the reader is asked to consider this question: How high or low does the percentage need to be before an item is of concern? For example, it is encouraging that over 78% of paraprofessionals reported that they had been provided with explicit information about the IEP goals for the students with disabilities and were clear about which parts of the general education curriculum these students were expected learn (see Table 4, item 3). But is it acceptable that over 22% of the paraprofessionals reported that they had *not* been provided with this information? It is encouraging that over 83% of paraprofessionals reported that the academic support they were asked to provide was within their scope of skill and comfort (see Table 4, item 14). But is it acceptable that nearly 17% reported that they were asked to provide academic support in subjects where they felt underskilled, unskilled, or uncomfortable? Would this percentage be different if the data included more respondents from high schools? What if a student whose education you cared about was experiencing services on the wrong side of these equations?

These data also raise continuing questions about the appropriate roles of special education paraprofessionals. For example, 24% of the paraprofessionals, and approximately 38% of *individual* paraprofessionals, indicated that they had as much communication with parents as the professionals or more communication (see Table 4, item 8). The question remains whether extensive parent communication is an appropriate role for paraprofessionals. A recent study by Chopra and French (2004) suggested that although this may be an appropriate role under some circumstances, it can negatively affect a student's education when the communication exists (a) "without the involvement or authorization of the person in charge of the program [teacher or special educator]" (p. 250) and (b) if the paraprofessionals "are not qualified or closely supervised" (p. 250).

The *don't know* data reported in Table 5 reveal informational breakdowns among educational team members. For example, what does it say about collaboration between general and special education teachers when 17% of teachers *don't know* whether the special educators with whom they work have the knowledge and skills to differentiate instruction within the

context of class activities for mixed-ability groups (item 11)? What does it say about schools' overall clarity on paraprofessional issues when 11% of parents, 13% of administrators, 21% of special educators, and 38% of teachers report that they *don't know* whether families are well informed about how the school defines appropriate and potentially inappropriate roles of paraprofessionals (item 15)?

Maybe most important, these data tend to confirm concerns in the literature about whether students with disabilities are receiving adequate instruction and equitable support from teachers and special educators. The data indicate a substantial reliance on paraprofessionals to provide primary educational support in many cases. This is particularly notable in reference to paraprofessionals' responses indicating that they spent about 86% of their time within 3 ft. of the students with disabilities they supported and to the fact that nearly 70% agreed that they are making curricular and instructional decisions without always having oversight by a teacher or special educator (see Table 4, items 6 and 10).

Limitations

In considering the findings, the reader is encouraged to remain cognizant of the study's limitations. First, data are all based on self-report, without other corroborative measures. Second, the respondents are geographically clustered in Vermont, a small state that (a) is predominantly rural, (b) has more than a 20-year history of including students with a full range of disabilities in general education classes, and (c) has a relatively small population of minority students (Thousand & Villa, 1995). Third, the range in numbers of respondents from the different respondent groups, differences in response rates, and the fact that the majority of the data are from individuals serving students in Grades K–8 should be considered. Finally, because of the conservative nature of the data analyses, only the most significant differences have been identified; thus, there is an increased probability of Type II errors. Despite these limitations, the perspectives of a large sample of respondents from different groups within the same 12 schools offer a unique opportunity to explore service delivery practices in these inclusive schools.

Implications for Practice

The findings of this study suggest a series of implications for practice that extend beyond issues such as whether we need to do a better job of training and supervising paraprofessionals. By exploring the interrelated data sets in this study, we have entered through the door of paraprofessional issues to examine general and special education practices in an effort get at some of the roots of successful support for students with a full range of disabilities in general education classes. The following implications reflect a combination of immediate implications for schools as well as long-range implications for the field.

- In an effort to tailor potential actions to individual situations, administrators are encouraged to collect the kinds of data included in this study within their own schools to develop a shared understanding within the school community by building a baseline profile of their personnel-related demographics, patterns of usage of time, and constituent perspectives on the paraprofessional and schoolwide practices effecting students with disabilities. Generic versions of the questionnaires used in this study are available for this purpose online (<http://www.uvm.edu/~cdci/evolve/surveys.html>).
- As a field and within school systems, we need to continue a cross-constituent dialogue about which emerging models of special education service delivery will meet the needs of students with disabilities within general education settings. Current models based on extensive reliance on paraprofessionals, though in widespread use, lack an educationally defensible foundation from a conceptual, theoretical, or data-based perspective.
- The study's data suggest that special educator working conditions (e.g., caseloads, paperwork, other use of time) require close scrutiny to ensure that we can attract and retain excellent special educators to work in our public schools. In part this means eliminating tasks from their jobs that do not require special educator skill (e.g., clerical, administrative); reducing the scope of their responsibilities (e.g., more tightly clustered grade levels/curricula to support, fewer paraprofessionals to direct); and ensuring that they have reasonable caseloads of students to support, in terms of both numbers and configuration.
- The study's data suggest that schools should deliberately match assignments to personnel's respective skills, training, certification, and student needs. Do we really want a model that may be inadvertently perpetuating low expectations and double standards? Do we really want a model where if you are *not* disabled, you receive your instruction from a highly qualified teacher, and if you have a disability, especially if it is considered severe, you receive the bulk of your instruction from paraprofessionals, with no guarantee of their qualifications?
- The study's data suggest that schools need to consider alternatives to extensive reliance on paraprofessionals, such as implementing co-teaching models, reallocating resources to pursue cost-neutral exchange of paraprofessional positions for special educator positions, strengthening schoolwide supports, building the capacity of teachers and special educators to teach mixed-ability groups, and offering peer support strategies, among others (Giangreco, Halvorsen, Doyle, & Broer, 2004).
- The *don't know* data from this study suggest that we need better collaboration and information sharing, especially between general education teachers and parents. The data suggest that schools could benefit from information sharing about the pros and cons of paraprofessional support, as well as explicit guidelines that detail the processes schools use for making decisions about how and under

what circumstances paraprofessional supports, especially individual supports, are necessary.

- The data also suggest that the role of general education teachers with regard to students with disabilities continues to require clarification, and that teachers and special educators could benefit from increased knowledge and skills about how to differentiate instruction for mixed-ability groups within the general education context.

As a field, we have yet to fully and equitably deliver the promises of the IDEA to all students with disabilities. Across the country, schools committed to the least restrictive environment provisions of the IDEA often have built their pursuit of quality inclusive education for students with disabilities on models that rely extensively on paraprofessionals. Such models have allowed schools to include increasing numbers of students with more severe disabilities without having to substantially address or change how the discrete special and general education systems collaborate and function. The result has been that paraprofessionals have served as an analgesic for the perceived pressures of including more diverse populations of students with disabilities. Unfortunately, to date we have no compelling evidence that this model is an effective educational support for students with disabilities.

We are concerned that the longer the pressures of inclusion continue to be shifted onto the backs of paraprofessionals, the more this delays attention to the root problems in general and special education that were highlighted in this study (e.g., caseload size, working conditions of teachers and special educators, professional ability to differentiate instruction for mixed-ability groups). We are concerned about efforts to extend the roles of special education paraprofessionals to include roles typically reserved for professionals (e.g., assessment, making curricular adaptations, instruction, communicating with families). Rather than shifting these responsibilities to paraprofessionals, we need to address the roles and working conditions of teachers and special educators and their effective utilization within inclusive classrooms serving students with and without disabilities.

Future research is needed to determine how decisions are made about the need for paraprofessional supports, which factors have perpetuated the proliferation of paraprofessional models that are without conceptual or data-based support, and what impact alternative service delivery models have on student outcomes. We hope the data from this study contribute to the national discussion about inclusive educational service delivery for students with disabilities and that they will challenge the field to shift from treating symptoms by utilizing more paraprofessionals in increasingly instructional ways and to focus more deliberately on the roots, namely, special and general education practices.

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