

Schoolwide Planning to Improve Paraeducator Supports

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ABSTRACT: *This study chronicled the use of a process of planning for paraeducator supports, by teams in 46 schools, in 13 states during the 2000-2001 and 2001-2002 school years. Data reflect the utilization and outcomes of the process along with the perspectives of 331 individual team members. Findings indicated that the process assisted school teams in self-assessing their paraeducator practices, identifying priorities, and developing action plans and implementing them. Individual team members reported that the process did what it purported to do and rated it highly on consumer-oriented variables. Culminating reports documented impact on school personnel and student outcomes. Implications for schools and future use are discussed for improving paraeducator supports and educational supports for students with disabilities.*

Increasingly paraeducators (also known as paraprofessionals, teacher aides, instructional assistants) are being utilized as a key service delivery support to assist in educating students with a range of disabilities in general education classrooms (Downing, Ryndak, & Clark, 2000; Giangreco & Doyle, 2002; Minondo, Meyer, & Xin, 2001; Riggs & Mueller, 2001). Although the numbers of paraeducators in special education has grown substantially over the past several years (Pickett, 1999), recent literature persistently suggests that they continue to be underappreciated, undercompensated, and asked to undertake critical instructional responsibilities without sufficient role clarification, planning by qualified professionals, supervision, or training (Giangreco, Edelman, Broer, & Doyle, 2001; IDEA Partnerships, 2001).

Ineffective utilization of paraeducators persists in schools even though these same basic issues have been documented in the literature for decades (Jones & Bender, 1993).

Current research data and practical tools are available to address many longstanding paraeducator issues. These include topics such as (a) role clarification, collaboration, and support of paraeducators (Doyle, 2002; Gerlach, 2001; Giangreco, Edelman, & Broer, 2001; Morgan & Ashbaker, 2001); (b) training (CichoskiKelly, Backus, Giangreco, & Sherman-Tucker, 2000; Ghere, York-Barr, & Sommerness, 2002; Institute on Community Integration, 1999); (c) interactions with students (Giangreco, Edelman, Luiselli, & MacFarland, 1997; Marks, Schrader, & Levine, 1999; Werts, Zigmond, & Leeper, 2001); and (d) supervision (French, 2001; Pickett

& Gerlach, 1997; Wallace, Shin, Bartholomay, & Stahl, 2001).

Although having a better trained and supported paraeducator workforce is undoubtedly a preferable alternative to the insufficiencies of the existing status quo, is it enough? Strengthening paraeducator supports without due consideration to strengthening the capacity and working conditions of general and special educators may inadvertently interfere with providing a free, appropriate public education to students with disabilities by sanctioning the least qualified personnel, typically paraeducators, to assume ever greater responsibilities for students with the most complex and significant learning and behavioral challenges (Brown, Farrington, Ziegler, Knight, & Ross, 1999; Giangreco, Broer, & Edelman, 1999). This paradoxical possibility reminds us that examination of paraeducator support of students with disabilities is appropriately considered within broader school improvement efforts where the roles, responsibilities, and working conditions of teachers, special educators, and administrators are taken into account. By broadening the scope of possible solutions to improve educational opportunities for students with and without disabilities, strengthening paraeducator supports is not viewed as the *only* option, but rather one among an array of options and combinations.

During the 1999-2000 school year, Giangreco, Broer, and Edelman (2002) conducted a pilot study to field-test a 10-step, schoolwide planning process to improve paraeducator supports. This process was designed to assist school-based teams assess their own status on 28 indicators of paraeducator support, identify their priorities pertaining to those supports, develop corresponding plans of action, implement their plan, and evaluate its impact. Although the results of that pilot study provided positive feedback from participants about the process and resulted in constructive actions in the schools, the scope of the study, which was conducted in four schools within the same reasonably well resourced suburban school system, presented significant limitations to commenting on its generalized utility.

The current study aimed to address the limitations of the pilot study by field-testing a slightly updated version of the same process in a larger set of more diverse schools. Additionally,

the current study extended the pilot by including data about the impact of schoolwide paraeducator planning and implementation efforts on school personnel and students. These two major extensions of the pilot study are important because they explore the utility of the planning process in more diverse settings and begin to make the somewhat elusive link between school planning efforts and student outcomes.

The current study posed a series of six evaluative questions.

1. How did the schools rate themselves on 28 indicators of paraeducator support?
2. What were the schools' self-identified paraeducator priorities?
3. What actions did the schools take to address their paraeducator priorities?
4. How did team members rate the paraeducator planning process on whether it did what it purported to do (e.g., help schools select appropriate priorities, develop plans to address identified priorities) and on consumer-oriented variables (e.g., importance, ease)?
5. What were participants' perspectives on the strengths, weaknesses, and suggestions for improving the paraeducator planning process?
6. What impact did the paraeducator planning process have on personnel and students?

This study fills a gap in the literature by presenting follow-up data on a practical tool that educational teams can easily access online and use to improve paraeducator supports. Currently, no comparable processes or data are described in the professional literature.

METHOD

RECRUITMENT OF FIELD-TEST SITES

Participating schools were recruited using an e-mail letter and one-page application sent to approximately 400 special education professionals nationally who were affiliated with college or university special education training programs, OSEP-funded projects, parent/advocacy organizations, or public schools. The same information was also posted on the project's Web site. Schools were offered \$1,000 mini-grants in exchange for field-testing a schoolwide planning process, devel-

oped by the authors, for improving paraeducator supports and supplying various data. To be eligible for participation, schools provided demographic information about their school and documented (a) administrative support for the project, (b) inclusion of students with disabilities in general education classrooms, (c) employment of paraeducators to provide educational supports, and (d) a voluntary commitment to participation. Each application included a statement of assurance, signed by school leaders (e.g., principals, superintendent, school board chairs), indicating that the school met the participation criteria.

Originally this project was slated to have 40 field-test sites. Over a period of 2 years, 52 schools submitted applications for mini-grants. Based on available grant funding, the goal of the authors was to fund as many schools as could be afforded. Through budget reallocation all 52 were offered minigrants. Ultimately, 46 schools participated as 6 schools that were offered mini-grants chose not to participate in field-testing. The most common reasons for nonparticipation were: (a) the mini-grant has been applied for by one school leader who then switched jobs and the person inheriting it was not interested in field-testing and (b) school leaders decided to direct their limited time toward other school priorities.

SETTINGS

This study was conducted in 46 schools in 13 states (AZ, CA, CO, IL, KS, MN, NY, TN, TX, VA, VT, WA, and WI). Nearly 70% ($n = 32$) were elementary schools, approximately 13% ($n = 6$) were middle schools, and another 13% ($n = 6$) were high schools. The remaining two schools (4%) were rural central schools spanning Grades K-12. Seventeen of the schools began their participation at the beginning of the 2000-2001 school year with implementation continuing into the 2001-2002 school year. The remaining 29 schools participated during 2001-2002.

The schools ranged in student population from 74 to 2,100. Over 65% ($n = 30$) of the schools had student populations exceeding 400. Approximately 52% ($n = 24$) of the schools were rural, 33% ($n = 15$) urban, and 15% ($n = 7$) suburban. Thirty-seven percent ($n = 17$) of the schools included minority student populations greater than 20%. As a proxy indicator of eco-

nomic status, 67% ($n = 31$) of the schools reported that between 20% and 99% of their students received free or reduced lunch. Across the 46 schools, the mean percentage of students on individualized education programs (IEPs) was 13% ($SD = 5.7$). There was an average of 14 paraeducators per school, 6.1 FTE assigned to individual students ($SD = 6.5$) and 8.1 FTE ($SD = 5.7$) assigned to groups of students. Therefore, this study addressed supports provided by 652 paraeducators who assisted in the education of 3,461 students on IEPs.

STUDY PARTICIPANTS

A total of 359 individuals were identified as members of the 46 paraeducator planning teams. Data were collected directly from 92% ($n = 331$) of those individuals. The 331 reporting members included 125 paraeducators, 61 general education teachers, 59 special educators, 27 parents, 36 school administrators (mostly principals and assistant principals), 12 related services providers (e.g., speech-language pathologists), and 11 others (e.g., community members, school board members, bus drivers, custodial staff).

PROCEDURES

Each school was provided with *A Guide to School-wide Planning for Paraeducator Supports* (Giangreco, Edelman, & Broer, 2000-2001), a 27-page planning booklet that included simple directions and corresponding worksheets pertaining to each of the steps listed in Figure 1. Although each team followed the same general process, written instructions encouraged teams to be flexible to ensure that the process was relevant and meaningfully individualized in their setting. Teams used the process to assess their school's needs, identify priorities, develop a plan, implement it, and evaluate it.

DATA COLLECTION

Teams provided three primary forms of data. First, a copy of each team's completed planning guide booklet was submitted following completion of Step 7 (see Figure 1). This provided the research team with data about team membership, timelines for the completion of steps, self-assessment ratings, priority selections, and action plans. Second, also after the completion of Step 7, indi-

FIGURE 1

Steps of A Guide to Schoolwide Planning for Paraeducator Supports

1. Inform your local school board of your intention to establish a team, or use an existing team, to address paraeducator issues.
2. Ensure that the team includes the appropriate members of the school and local community.
3. Have the team assess their own status and fact-find in relation to six paraeducator topics:
 - (a) Acknowledging Paraeducators
 - (b) Orienting and Training Paraeducators
 - (c) Hiring and Assigning Paraeducators
 - (d) Paraeducator Interactions With Students and Staff
 - (e) Roles and Responsibilities of Paraeducators
 - (f) Supervision and Evaluation of Paraeducator Services
4. Prioritize and select topics and specific issues that reflect areas of need within the school that the team will work on first.
5. Update your local school board of the team's ranked priorities.
6. Design a plan to address the team's ranked priorities.
7. Identify local, regional, and statewide resources to assist in achieving team's plans.
8. Implement the team's plans.
9. Evaluate the plan's impact and plan next steps.
10. Report impact and needs to your local school community.

vidual team members completed questionnaires about the paraeducator planning process where they were asked to respond to seven evaluative statements using a Likert-style scale where 1 was anchored with the phrase "strongly disagree" and 4 was anchored with the phrase "strongly agree." The questionnaire statements sought to identify the participants' perspectives on (a) whether the paraeducator planning process did what it purported to do (e.g., helped select appropriate priorities, helped develop a plan) and (b) a small set of consumer-oriented variables (e.g., importance, ease of use). The questionnaire also included three questions that called for brief written responses about the strengths and weaknesses of the planning process and suggestions for improvement.

Third, after completion of Step 10, the teams submitted a written report of impact designed to assist in making links between actions taken by the school as a result of their paraeducator planning and outcomes for school personnel and students. (This was an added set of data that was not collected in the pilot study.) Each team was asked to submit a brief report by responding to the following question, "*In what ways are students with disabilities better off because of the paraeducator supports you have implemented through your paraeducator action-planning?*" This question

is in alignment with contemporary evaluation practices that focus on *social betterment* (Henry, 2000) as a primary goal of evaluation. Rather than the research team presuming what the outcomes for school personnel and students *should be*, this approach opened the door for school teams to reflect on their work and describe what they deemed as important outcomes that had occurred for personnel and students in their schools. It encouraged teams to consider how the lives of school personnel and students were better as a result of their actions. In an effort to minimize respondent burden and increase the utility of the report for local use, teams were given written instructions to be as explicit as possible yet to approach the task flexibly. Schools that developed products (e.g., job descriptions, orientation manuals, supervision forms) submitted those as evidence of their work.

DATA ANALYSIS

Quantitative data from teams and individual team members were analyzed using a mainframe version of the SAS System (SAS Institute, 1999-2000) to calculate descriptive statistics. Chi-square analyses were also conducted to determine if individual team members' questionnaire responses varied based on his or her role within the

school (e.g., teacher, special educator, paraeducator, administrator). Priority rankings were established by the frequency (nonweighted) with which an indicator was identified among each team's top five priorities. Action ranks were based on a simple frequency count based on their presence in a written action plan.

Written comments from participants' questionnaires were organized thematically. The first author analyzed the 300 pages of text data from 40 impact reports inductively using categorical coding (Bogdan & Biklen, 1992). Each report was imported from a word processing program into HyperQual3 (Padilla, 1999), a computer application designed to assist in sorting qualitative text data. The reports were read and tagged using 23 codes utilizing words descriptive of text content. HyperQual3 was used to sort the data into 23 code-specific reports. Inductive analysis (Bogdan & Biklen) was applied to the code-specific reports to assist in the identification of 11 outcome themes. Subsequently, a matrix was developed listing the schools on the left and the 11 outcome themes across the top. This allowed for a simple visual analysis highlighting the types and frequency of impact reported across the schools.

FINDINGS

The findings are organized by the study's six evaluation questions. In considering these findings, the reader is encouraged to consider the study's limitations. The authors of this article are offering field-test data on a process they developed. Anytime an innovation is evaluated by the individuals who developed it, rather than by an independent third party, a reader should always be cognizant of potential bias. Given the absence of control groups, it is not possible to ascertain the effectiveness of the process as an independent variable from an experimental perspective. Further, all participating schools did so voluntarily in response to a mini-grant award recruitment; therefore, the possible influence of self-selection and inducement should be considered (e.g., Hawthorne effect). Second, although all of the schools followed the same basic process, there is no assumption of strict fidelity in terms of how they utilized the planning process. In fact, the

reader should assume that there were variations in how the teams used and interpreted the paraeducator planning process. The reader is also reminded that the participants were being asked to provide evaluative feedback about the planning process to the developers of the process and that these field-test results were collected and analyzed by the developers.

Last, the impact reports produced by the school teams varied substantially in length, detail, descriptiveness, and methodology. Some teams reported using a wide variety of data collection methods such as IEP progress reports, questionnaires, student record reviews, interviews with various stakeholders (e.g., students, parents, special educators, teachers), discipline referral reports, attendance records, and direct observations upon which they based their reports about student outcomes. Some teams did not describe the basis for their reported outcomes. Despite its limitations, this study provides authentic, field-based data, suggesting that (a) schools with widely varying characteristics successfully utilized the school-wide paraeducator planning process to assist them in improving paraeducator supports schoolwide, (b) individuals using the tool rated it favorably, and (c) implementation of action plans resulted in a wide variety of positive outcomes for school personnel and students.

SELF-ASSESSMENT RATINGS ON 28 INDICATORS OF PARAEDUCATOR SUPPORT

Table 1 (four right columns) indicates that the majority of teams rated themselves as needing "some work" or "major work" on most of the listed indicators of paraeducator support. Twenty-one of the 28 indicators were rated as either "needs some work" or "needs major work" by 50% to 96% of the schools. The five indicators of paraeducator support with the highest combined "needs work" percentages were (a) substitute paraeducators recruited and trained, (b) orientation and entry-level training, (c) times and mechanisms to work with teachers, (d) on-the-job training to match responsibilities, and (e) compensated for education, experience, and skills. Conversely, only seven indicators were rated as "OK for now" or "doing well" by 51% to 70% of the schools. The five indicators with the highest combined "OK for now" or "doing well" percent-

TABLE 1
Action Ranks, Priority Ranks, and Self-Assessment Ratings From 46 Schools Based on Indicators of Paraeducator Support

Action Rank (n)	Priority Rank (n Among Top 5 Priorities)	Abbreviated Indicators (Item number from A Guide to Schoolwide Planning for Paraeducator Supports)	% (n) Needs Major Work	% (n) Needs Some Work	% (n) OK for Now	% (n) Doing Well
1 (25)	1 (27)	Orientation and entry-level training (4)	50.00 (23)	39.13 (18)	6.52 (3)	4.35 (2)
2 (21)	2 (18)	On-the-job training to match responsibilities (5)	32.61 (15)	50.00 (23)	10.87 (5)	6.52 (3)
3 (16)	7 (12)	Times and mechanisms to work with teachers (23)	32.61 (15)	52.17 (24)	13.04 (6)	2.17 (1)
4 (13)	3 (15)	Accurate job description (14)	20.00 (9)	55.56 (25)	17.78 (8)	6.67 (3)
5 (11)	5 (13)	Access to ongoing learning opportunities (6)	21.74 (10)	58.70 (27)	15.22 (7)	4.35 (2)
6 (9)	13 (7)	Paraeducators receive ongoing supervision (25)	39.13 (18)	36.96 (17)	17.39 (8)	6.52 (3)
7 (8)	7 (12)	Paraeducators valued, appreciated, recognized (3)	13.04 (6)	50.00 (23)	19.57 (9)	17.39 (8)
7 (8)	10 (8)	Paraeducators should be team members (1)	17.39 (8)	63.04 (29)	15.22 (7)	4.35 (2)
9 (5)	4 (14)	Substitute paraeducators recruited and trained (9)	62.22 (28)	33.33 (15)	4.44 (2)	0.00 (0)
9 (5)	13 (7)	Written plan clarifying nature/extent of support (11)	22.22 (10)	42.22 (19)	28.89 (13)	6.67 (3)
9 (5)	16 (6)	Informed of educational needs (e.g., IEP goals) (20)	10.87 (5)	39.13 (18)	36.96 (17)	13.04 (6)
12 (4)	9 (9)	Practices to recruit, hire, and retain paraeducators (8)	35.56 (16)	37.78 (17)	17.78 (8)	8.89 (4)
12 (4)	21 (3)	Team input on assignments and reassignments (13)	15.56 (7)	42.22 (19)	24.44 (11)	17.78 (8)
14 (3)	10 (8)	Paraeducator training has CEU or college credit (7)	36.96 (17)	28.26 (13)	19.57 (9)	15.22 (7)
14 (3)	16 (6)	Paraeducators contribute, not solely responsible (21)	13.04 (6)	41.30 (19)	36.96 (17)	8.70 (4)
16 (2)	5 (13)	Compensated for education, experience, skills (15)	53.33 (24)	28.89 (13)	8.89 (4)	8.89 (4)
16 (2)	10 (8)	Supervisors of paraeducators trained to supervise (24)	21.74 (10)	30.43 (14)	30.43 (14)	17.39 (8)
16 (2)	25 (2)	Paraeducators carry out a variety of supports (22)	4.35 (2)	26.09 (12)	45.65 (21)	23.91 (11)
19 (1)	16 (6)	Plan to evaluate fading of paraeducator supports (27)	21.74 (10)	52.17 (24)	19.57 (9)	6.52 (3)
19 (1)	19 (5)	Paraeducators promote inter- and independence (17)	10.87 (5)	32.61 (15)	30.43 (14)	26.09 (12)
19 (1)	21 (3)	Paraeducators part of school improvement plans (26)	26.09 (12)	45.65 (21)	28.26 (13)	0.00 (0)
22 (0)	13 (7)	Work directed by teachers and special educators (18)	15.22 (7)	47.83 (22)	23.91 (11)	13.04 (6)
22 (0)	20 (4)	Paraeducators assigned to classrooms rather than 1:1 (12)	15.56 (7)	28.89 (13)	40.00 (18)	15.56 (7)
22 (0)	21 (3)	Professional staff have ultimate responsibility (19)	8.70 (4)	34.78 (16)	32.61 (15)	23.91 (11)
22 (0)	24 (2)	Demonstrate constructive interpersonal skills (16)	6.52 (3)	23.91 (11)	34.78 (16)	34.78 (16)
22 (0)	26 (1)	Determining if paraeducator support is needed (10)	13.33 (6)	35.56 (16)	35.56 (16)	15.56 (7)
22 (0)	26 (1)	Evaluate impact of paraeducator services (28)	39.13 (18)	41.30 (19)	15.22 (7)	4.35 (2)
22 (0)	28 (0)	Paraeducators provide important services (2)	10.87 (5)	30.43 (14)	26.09 (12)	32.61 (15)

ages were (a) paraeducators carry out a variety of supports, (b) demonstrate constructive interpersonal skills, (c) paraeducators provide important services, (d) professional staff have ultimate responsibility, and (e) paraeducators promote inter- and independence.

SCHOOLS' SELF-IDENTIFIED PARAEDUCATOR PRIORITIES

As listed in Table 1, the most frequently identified priorities were (a) orientation and entry-level training, (b) on-the-job training to match responsibilities, (c) accurate job description, (d) substitute paraeducators recruited and trained, and (e) access to ongoing learning opportunities. Twenty-seven of the 28 indicators were identified by at least one team as being among its top five priorities. The five indicators self-assessed as most frequently in need of some or major work also were all among the top eight overall priorities. Similarly, the seven indicators rated as "OK for now" or "doing well" by 51% to 70% of the schools were also among the 10 least frequently selected priorities. Although this general relationship was noted, there were exceptions. For example, the indicator, *Evaluate the impact of paraeducator services*, was self-assessed as the sixth highest rated in terms of needing some or major work, yet it was ranked as the second lowest in terms of priority selections. *Accurate job description* was rated 10th in terms of needing some or major work, yet rose to be the third most frequently identified priority.

ACTIONS TAKEN BY SCHOOLS TO ADDRESS THEIR PARAEDUCATOR PRIORITIES

The majority of schools completed their paraeducator planning (through Step 7) within 2 to 4 months. Depending on the content of their action plans, some schools were able to implement the actions outlined in their plans immediately, and thus were implementing by mid- to late fall. Other teams made plans that required development activities (e.g., developing a job description, orientation manual, supervision model); they began their implementation later in the school year.

As shown in Table 1 (left column), the five most frequently taken actions by the teams corresponded with the following indicators (a) orienta-

tion and entry-level training, (b) on-the-job training to match responsibilities, (c) times and mechanisms to work with teachers, (d) accurate job description, and (e) access to ongoing learning activities. Four of the five most frequently taken actions were also among the top five priorities.

There were a few notable exceptions to this trend. For example, the indicator, *Substitute paraeducators recruited and trained* was rated as the indicator most in need of work and was the fourth ranked priority. Yet only 5 of the 46 teams took an action related to this indicator, dropping it to ninth in the action ranking. The indicator, *Compensated for education, experience, and skills*, followed a similar pattern. It was ranked as the fifth highest priority and in terms of needing work, yet it dropped to an action ranking of 16 as only two schools decided to take action on this issue. Conversely, the indicator, *Times and mechanisms to work with teachers*, was the seventh most highly ranked priority by the teams and jumped to third in the action ranking.

PARTICIPANT QUESTIONNAIRE FEEDBACK

The information in Table 2 is presented aggregately because Chi-square analyses identified no significant differences in participants' responses based on their role (e.g., paraeducator, teacher, special educator). The vast majority of the individual team members (96%-98%) "agreed" or "strongly agreed" that the schoolwide paraeducator planning process (a) helped them gain insights about paraeducator issues in their schools, (b) helped them understand the perspectives of others about paraeducator issues, (c) helped their schools select appropriate priorities that required attention, (d) helped their schools develop appropriate plans to address self-identified priorities, (e) was an important activity for their school, (f) was logical, and (g) was easy to use.

PERSPECTIVES ON THE STRENGTHS, WEAKNESSES, AND SUGGESTIONS FOR IMPROVEMENT

As noted by the representative quotes included in Figure 2, team members identified that the major strengths of the schoolwide paraeducator planning process were as a mechanism to bring people together to focus on paraeducator issues and its structural characteristics (e.g., "sim-

TABLE 2
Participants' Perspectives

<i>The Paraeducator Action-Planning Process</i>	<i>Strongly Disagree % (n)</i>	<i>Disagree % (n)</i>	<i>Agree % (n)</i>	<i>Strongly Agree % (n)</i>
1. Helped me gain insights about paraeducator issues in our school	0.00 (0)	2.46 (8)	55.69 (181)	41.85 (136)
2. Helped me understand the perspectives of others about paraeducator issues	0.00 (0)	1.54 (5)	64.31 (209)	34.15 (111)
3. Helped our school select appropriate priorities that require attention	0.00 (0)	1.56 (5)	58.26 (187)	40.19 (129)
4. Helped our school develop an appropriate plan to address our self-identified priorities	0.00 (0)	2.56 (8)	64.86 (203)	32.59 (102)
5. Is an important activity for our school	0.61 (2)	1.23 (4)	41.72 (136)	56.44 (184)
6. Is a logical process	0.31 (1)	0.92 (3)	65.44 (214)	33.33 (109)
7. Is easy to use	0.00 (0)	4.09 (13)	74.21 (236)	21.70 (69)

ple, but effective"; "flexible structure"). Team members who identified weaknesses were concerned about the amount of time it took to complete additional paperwork. Others commented on the structural and language concerns (e.g., "cumbersome," "complexity," "redundancy"). Several individuals noted challenges to utilization that reflected system issues rather than problems with the tool per se (e.g., time to meet, scheduling conflicts, relationship problems among adults). Primary suggestions for improvement included (a) exploring ways to streamline the process and generate less paperwork, (b) simplifying wording, (c) avoiding redundancy, (d) adding examples, and (e) exploring ways to adapt the planning process from a schoolwide to districtwide approach.

IMPACT REPORTING

Of the 46 teams, 40 submitted impact reports. The six other schools completed the process and data collection through Step 7, but did not implement their action plans prior to the end of the data collection period for various reasons (e.g., death of a principal, school closed due to air quality problems, project was inherited, schools were too busy). Among the 40 submitted reports, seven schools described what they were doing but did not comment on impact because they had not implemented their plans for a sufficient amount

of time. Therefore, the following findings are based on the reports of the remaining 33 schools. Seventeen planned and implemented over a 2-year period, 16 over a 1-year period.

Eleven categories of impact were reported by the schools (see Table 3); a further categorization highlighted two types. The first type included seven categories related to *impact on adults* (e.g., paraeducators, teachers, special educators, parents). The second type included the remaining four categories, each of which reflected *direct impact on student outcomes*.

Impact on Adults. The most commonly reported impact on adults was that paraeducators knew their jobs better as a result of the paraeducator planning and subsequent actions taken by schools. As a paraeducator who was involved in accessing Web-based training materials wrote, "I feel that the material covered has helped me understand a broader view of my position as a paraeducator which will improve the quality of services to students." A paraeducator who participated in face-to-face training commented, "I am more aware of how to assist with teacher-planned instruction. I feel more capable, informed and confident as a paraeducator." As a result of a newly developed orientation manual and procedures, a teacher at a different school stated, "The paraprofessional now has a better understanding of the entire process and can deal with the student in a

FIGURE 2

Representative Written Comments (Verbatim) About Strengths and Weaknesses

<i>Strengths</i>
<ul style="list-style-type: none">• Outlines important issues affecting paraeducators• Organized; structured; logical; comprehensive; clear; concise; sequential; step-by-step• Easy to follow; simple, but effective; user-friendly; flexible structure• Brings everyone together to discuss issues• Involves a variety of team members, which allows for different perspectives on issues• Helps to understand the opinions of all people involved; makes you look at things from a different perspective• This framework helped us to identify unknown issues and develop a clearer picture of known issues; self-assessment helped with reflecting on our school's strengths and needs• Focused us; increased communication among team members• Gets people thinking creatively; the process was organized without being confining• Helped us establish priorities and timelines• Creates a workable plan
<i>Weaknesses</i>
<ul style="list-style-type: none">• Long; time consuming; could be perceived as cumbersome; complexity• Too much paperwork; boxes on the form are too small; a little wordy• Some of the questions were ambiguous; some items appeared to be redundant• Some issues were contractual and, therefore, not something the team can resolve• I don't know if this is a weakness, but it took a long time coming to consensus on choosing the five priorities

more appropriate manner (So can I!).”

The next most commonly reported outcome was *improved morale among paraeducators*. This was characterized by a paraeducator who indicated that as result of the paraeducator planning in her school, “I feel that I am a valued contributing member of the educational teams I work with.” Paraeducators feeling more valued was reported to be on the rise in several of the schools before any of the action plans were ever instituted. The use of the paraeducator planning process itself reportedly provided a strong message of support and value to many paraeducators that served to raise their morale. As was stated in one of the reports:

Many paraeducators have expressed their appreciation that the school is looking at their needs in a new way and that several paraeducators have been directly involved in the process. Paraeducators were also very happy that their issues have been brought to the school board with the planning team's presentation. This increased visibility of paraeducators and their needs has had an impact on raising morale.

Additionally, it was reported that paraeducators felt valued as a result of the actions taken by the schools based on their paraeducator planning. As stated in another report:

When we designed the paraeducator job description and the evaluation, I don't think the team realized the impact it would have on the paraeducators. Our mini-grant work has provided appreciation and recognition for their hard work to our school and community.

Concurrently, nonparaeducator members of the educational community reported an *increase in awareness of the value of paraeducators*. “Teachers learned how valuable paraeducators could be by understanding their role.” For some teachers this represented a shift in their perspectives. One such educator wrote:

I found that during my first 2 years of teaching I was having frequent conflicts with paraeducators. In part this was due to role confusion and seemingly incompatible belief systems about how to work with persons with disabilities. By participating in the action-planning process with paraeducators that I respected, I came to better understand the issues that are important to them.

This increased awareness led to reports of more effective utilization of paraeducator supports. “All adults in the building, especially general educators, are utilizing instructional assistants more efficiently and effectively. General educators appear to be more aware of the variety of ways

TABLE 3
Types and Frequency of Impact From Schools That Submitted Impact Reports (n = 33)

<i>Categories of Impact</i>	<i>%</i>	<i>n</i>	<i>Type of impact</i>
Paraeducators knew their jobs better	79	26	Adult
Improved morale among paraeducators	48	16	Adult
Increased professional awareness of paraeducator value	33	11	Adult
Improved student achievement	24	8	Student
More student inclusion	21	7	Student
Improved student behavior and school safety	18	6	Student
Paraeducators knew the students better	24	8	Adult
Retained more paraeducator staff	18	6	Adult
Improved delivery of instruction	15	5	Adult
Improved home-school collaboration	12	4	Adult
Increased peer interactions	6	2	Student

they can utilize instructional assistants within the classroom.”

Teams reported that as a result of their paraeducator planning, paraeducators knew the students better. Reports indicated that this outcome was frequently associated with the indicator to establish “times and mechanisms to work with teachers” (Table 1, Action rank #3) and was put into action through steps such as conducting shared student record reviews with the paraeducators and teaching faculty prior to the beginning of the school year, and establishing regular meeting times to discuss students’ characteristics, needs, and educational goals. In some instances this was reflected in access to information as basic and vital as knowledge of the student’s IEP goals and objectives. As one paraeducator explained, “Last year I did not have access to IEPs. This year I am clearer on who the student is and what his goals are.” At other times knowing students better allowed problems to be avoided. A paraeducator described how “advanced knowledge of a student’s need to be aware of upcoming changes has made transitions easier for the student.”

Six schools identified *retaining paraeducator staff* as an outcome attributable to their paraeducator planning efforts. These teams reported that their efforts to demonstrate respect, clarify the roles, provide training, and improve supervision led to higher job satisfaction and lower turnover in paraeducator staff. A school report stated, “We also learned that paraeducators have remained at our school due to the increase in being valued for their contributions.” During self-assessment (Step 3, Figure 1), one of the six schools also noted a

problematic pattern of absenteeism among its paraeducators. Their impact report stated, “Absenteeism is down among paraeducators...part of that is greater commitment to kids and more job satisfaction.”

Five of the schools reported *improved delivery of instruction* by various school faculty as a result of their paraeducator planning and implementation. The three most common results reported were (a) increased time devoted to instruction (e.g., “We were able to spend more time directly targeting IEP goals and objectives.”), (b) paraeducators gained new instructional skills (e.g., prompting, fading, correction procedures), and (c) increased expectations that students with disabilities would access the general education curriculum and their own individualized goals. This represented a fundamental change in approach for some paraeducators after they received training on curriculum and instruction and were provided with teacher-planned lessons. As one paraeducator wrote:

I never thought that in regular education there would have to be any instruction with the special needs students because the work was too hard and it [general class placement] was just to improve the students’ socialization skills. Now I know about modifications to difficult work.

One team explained this change in perspective and practice this way, “Students [with disabilities] are more successful in class because we now structure our meeting time and conclude our meetings with an action plan suitable to our students.” As a result, “Students with disabilities were given more accurate modifications and adap-

tations and more quality support throughout the entire day.” As another report summarized, “Para-professionals are now able to understand and support individual goals for students, recognizing that individuals may need to work on different levels or even different tasks than their peers, within the same classroom setting.”

The process of supporting paraeducators also had a positive impact on instruction delivered by some of the general and special education teachers. One special educator described how her work developing training materials for an instructional skills unit for paraeducators prompted her to reflect on her own teaching. She described coming to the conclusion that her instruction was “really boring” and decided to do something about it.

I’ve found ways to make the instruction more interesting and stimulating and the students are working hard to achieve their goals. In fact, the students have almost tripled their work output, and I am being challenged to keep up with them.

A different middle school reported, “General education instructors became more willing to change assignments and eager to share modifications with any student in need. We made great strides this year in all teachers talking about ‘our kids’ and meaning everyone!”

Four schools reported that their paraeducator planning had a positive impact on *home-school collaboration*. The reports included comments indicating “increased parental satisfaction with paraeducator performance” and development of “stronger communication links with families.” For example, a report from a school where they developed an extensive Web site stated, “Having information on the Web has also been an effective way to communicate to parents the goals and activities of classrooms. By providing parents with information about what our staff is doing up front, there have been fewer misunderstandings.”

Direct Impact on Students. Eight schools reported *improvement in student achievement* and “positive impact on student learning” as outcomes of their paraeducator planning and implementation. They qualified reported achievement gains by indicating that their paraeducator planning and implementation efforts were “one component that facilitated these successes” and should not be

viewed as the sole contributor to reported student achievement. Reports by teachers and paraeducators indicated that students with disabilities “made progress on their IEP goals and also made progress in the general education curriculum.” For example, one school reported, “It was a success for all involved to see students’ reading scores go up several levels. Similar gains were noted in other areas such as math, handwriting, and in student self-management of schedules.”

Schools reported a variety of examples of individual student achievement. For example, it was reported that one student

progressed from failing grades in all core classes and no completed daily assignments to Cs and Bs in all classes. Daily assignments were shortened, and organizational prompts and paraeducator support allowed this student to find success without having to be pulled out of the general education classes. The time that allowed special education staff to meet with general education staff helped the paraeducator feel more comfortable and informed about the direction of instruction and thus, better able to encourage the student. The collaborative efforts of all helped students increase grades and successful completion of class activities.

Functional life skills were also identified as examples of achievement. “One student was toilet trained during the school year. Time to collaborate helped this occur as the parent, general educator, paraeducator, and special educator worked out the details of the schedule and toilet training.” In another situation a classroom teacher wrote, “The student in my classroom has become more independent. His paraprofessional and I have tried stepping back more and we have seen an improvement in his independence.”

Seven schools reported *more student inclusion* as a result of their paraeducator support efforts. This was reflected in “increased participation in general education activities” for students with disabilities. Sometimes this meant qualitative improvements in practices occurring in general education classes where students already had access. One school reported this scenario:

Having the [classroom] teacher talk directly to the student has given this individual student a sense of importance in the regular education classroom. The teacher showing value to the stu-

dent not only boosts the student's self-confidence but also demonstrates to the regular education students that his/her presence is valued. When observing this firsthand, I've noticed that increased learning is taking place, along with a willingness to participate more positively.

In other cases it meant access itself. For example, "One student with an emotional disturbance label began the year spending most of his day in the special education classroom. At the end of the year he was spending the majority of his day in the general education classroom." In the most extreme example, a student with severe behavioral challenges was being tutored at home "to ensure safety of other children" and residential placement was being considered. The team realized the crucial importance of matching this student's characteristics and needs with those of support personnel. As a team, they generated a list of the qualifications they sought in a paraeducator to be part of this team. The special educator wrote, "Even though it sounds very routine, this situation really brought to mind the importance of training, hiring, and the roles and responsibilities of paraeducators." Not only was the residential placement averted, but

The child began a modified program in our school. By the end of February vacation he was a full-time student in our school. The paraeducator had become a helper, not a hoverer, within the classroom setting as the child spread his wings and flew!

Across the examples, gains in inclusive opportunities were "attributed to the extra collaborative time given to paraeducators and teachers to meet and to discuss activities and assignments and how the student might be involved."

Six schools reported improvements in *student behavior* or *school safety* as a result of their actions to support the work of paraeducators. Reports listed improved "hallway behavior" by students, "fewer disciplinary slips being turned into administrators," and a "playground that has become a more orderly and safe environment for students" as examples of how paraeducator efforts had contributed to positive student outcomes. Another report stated:

Student behavior improved as a result of professional development materials given to the paraeducators. Several paraeducators attributed this to

having a better understanding of the behavior the students were displaying and better ideas for how to respond. Several respondents attributed this to time spent collaborating with teachers resulting in more consistency and follow through with behavioral expectations. It was reported that both teachers and paraeducators were providing more positive behavior supports for students.

As summarized in one report, "We have observed less anger and improved social skills on the part of students. This overall positive approach has impacted the classroom environment in a way that has affected all students."

Two schools noted *increased peer interactions* as a result of their paraeducator planning (e.g., "We also have noticed more interaction between the student [with a disability] and his peers."). One of the special educators reported:

Students with disabilities were immediately included more with their peers, such as sitting with their peers rather than being isolated. Aides stepped back when appropriate so the children were treated more like everyone else in the group. I saw these immediate changes in K-2, especially with the three autistic children and their aides that I work with. It has been a positive experience! Without this training, none of us would have been comfortable making these changes.

Paraeducators reported feeling more valued and gaining knowledge and skills about their jobs, students, and instruction.

In another situation in two different classes where each included a student with Down syndrome, the report stated:

As the year went on more interaction between the individual students [with disabilities] and peers was occurring. Students [without disabilities] were initiating interactions with the students [with disabilities] as peer tutors, friends, and as partners. The students [with disabilities] were considered members of the classrooms by their teachers, which impacted peer attitudes. In a climate of acceptance, students make progress;

that was observed in both of these settings. Collaboration time and the provision of materials to paraeducators working in these settings about Down syndrome, inclusion, communication, and facilitating interactions with peers all impacted these changes and outcomes.

Ripple Effect. In virtually all of the schools reporting impact, there was an overarching theme suggesting a ripple effect that started with the initiation of paraeducator planning process and culminated in positive outcomes for students. This ripple effect generally was characterized by four stages. First, each school's team utilized the schoolwide paraeducator planning process to self-assess their paraeducator supports, select priorities, and develop action plans. As one report stated, "The opportunity to participate in the *Schoolwide Planning for Paraeducator Supports* project was a springboard to the development of a long-term staff development plan for our paraprofessional staff."

Second, this led to schools taking a variety of individually determined actions (e.g., orientation, training, meeting times, job descriptions, supervision models, appreciation luncheons). Third, these actions had a positive impact on the adults who were responsible for educating students with and without disabilities. Paraeducators reported feeling more valued and gaining knowledge and skills about their jobs, students, and instruction. The actions also increased the value of paraeducators in the eyes of other school personnel and parents. The combined effects included higher morale, retention of paraeducator staff, more collaboration among school personnel and families, and more effective educational planning and implementation (e.g., "the students' skills were improving because teachers and parents were discussing individual student progress in a collaborative team meeting and working together to help students.")

Fourth, the aforementioned adult outcomes subsequently contributed to student outcomes such as increased inclusion in general education settings, student achievement (e.g., IEP goals, general education curriculum), student behavior and safety, and peer interactions. For example, a school report described a ripple effect in terms of how training efforts and the availability of a special educator to provide ongoing support to

paraeducators influenced students. "As a result [of our actions], paraeducators feel more valued because they receive immediate feedback and direction...[that] has assisted in increasing student belonging...[and] student achievement." Another school offered this example of the ripple effect, "providing supports for teaching assistants in the areas of education and collaboration seems to improve self-confidence, which in turn seems to improve the working environment and the support of students." One report writer summed up her school's experience this way, "Overall, the entire paraeducator grant team felt that the procedures put in place helped students more effectively participate in the general education classroom."

Providing supports for teaching assistants in the areas of education and collaboration seems to improve self-confidence, which in turn seems to improve the working environment and the support of students.

DISCUSSION

The combination of team and individual data presented in this study documents that schools with a wide range of demographic characteristics successfully utilized the schoolwide paraeducator planning process to self-assess their status on indicators of paraeducator support, identify priorities, and take corresponding actions. The vast majority of individual team members who participated in the process reported that the process did what it purported to do and found it helpful, logical, and easy to use. Impact reports offered authentic, field-based, feedback indicating that actions taken as a result the paraeducator planning process had a positive impact on adults in the schools and that this led to a ripple effect resulting in positive student outcomes (e.g., achievement, inclusion, behavior, peer interactions).

It is notable that even these self-selected schools chose to initiate actions primarily on what might be termed "first-generation" issues, referring to those considered to be the most basic (e.g., job descriptions, training, orientation). Al-

though each of these schools obviously included many individuals who were keenly aware of these first-generation issues long before their participation in this field-testing, it took the introduction of this structured opportunity, establishment of a team, and a systematic planning process before these first-generation issues were acted upon.

A closer examination of the quantitative team data suggests that although there is a strong relationship between needs, priorities, and actions taken, exceptions to the trend likely depend on factors such as perceived ease or difficulty of implementation, time, immediacy of the need, and perceived locus of control. For example, ensuring that paraeducators are informed about students' educational needs (e.g., IEP goals) is a relatively easy, concrete task and is an immediate need. Not surprisingly, it rose from a lower priority to a higher ranking action. Conversely, improvements in compensation to paraeducators was identified as high need and priority, yet dropped in the action-rankings, presumably because it was a much more complex task, would take longer to affect, and many teams may perceive it as beyond their control.

Sometimes indicators that were low in the action-rankings, regardless of their need or priority status, might be considered "second-generation" issues. This refers to those issues a school might attend to once the more immediate, first-generation, issues have been addressed. For example, when schools are dealing with the most basic issues of hiring and retaining, orienting, and training paraeducators, they may be less likely to take actions such as training teachers and special educators in the supervision of paraeducators, developing criteria to determine if paraeducator support is needed, or evaluating the impact of paraeducator services. The range of first- and second-generation indicators included in this tool and the inherent individualization the process encourages in the interpretation of the indicators and steps allows schools at virtually any stage of development to use the tool to effect improvements.

The selection of first-generation actions by the schools likely had a significant influence on the reported impact and outcomes. The fact that 79% ($n = 26$) of schools reporting adult impact noted, *paraeducators knew their job better*, corre-

sponds closely with the common actions undertaken by schools (e.g., entry-level training, development of orientation manuals and procedures, development of job descriptions) that would logically lead to paraeducators having a better understanding of their jobs. Therefore, the frequency of various categories of impact on adults and students is likely to shift based on the actions taken.

Although frequency counts and qualitative findings were offered to characterize the types and categories of impact that resulted from the use of the schoolwide paraeducator planning process, the magnitude of the impact or the level of contribution of the various actions had on schools, personnel, families, or students was difficult to assess. Nevertheless the schools' reports provided a general impression that their involvement using the paraeducator planning process was worthwhile. The types and categories of impact on adults and students provided specific examples that schools considering its use in the future can anticipate.

Future development should further explore options for streamlining the process and adjusting it in ways consistent with consumer feedback so that more schools are encouraged to initiate schoolwide paraeducator planning efforts.

Future development should further explore options for streamlining the process and adjusting it in ways consistent with consumer feedback so that more schools are encouraged to initiate schoolwide paraeducator planning efforts. Additionally, teams might consider expanding the team to include a "critical friend." This would be a knowledgeable individual (e.g., special educator from a neighboring school, local consultant, university faculty member) who would be available to participate as a planning team member to provide perspectives "outside the system."

Future research should continue to pursue links between planning and implementation ef-

forts geared toward adults who work with students with disabilities and their impact on students. When so much research and so many other federally-funded training, outreach, and model demonstration initiatives are geared toward affecting adults who interact with students with disabilities, finding credible ways to link efforts with student outcomes is essential.

IMPLICATIONS FOR PRACTICE

This study highlights the availability of a field-tested process schools can utilize to improve paraeducator supports and subsequently contribute to improving student outcomes. Presumably, the same basic process could foster collaboration if applied to other issues. Field-testing suggests broad applicability in large and small schools in urban, suburban, and rural settings, and in schools with diverse student populations. Additionally, findings describing the impact on adults logically build capacity in schools by improving staffing continuity through retention of paraeducators over time, maximizing the impact of expended training resources, and fostering ongoing collaboration among paraeducators and other team members.

A Guide to Schoolwide Planning for Paraeducator Supports is online, free, and available to any school interested in downloading it. The tool's attempted balance of structure and flexibility allows schools to tailor the steps and indicators to coincide with local needs. The interactive design provides prompts and structure to facilitate team decision making, without constraining teams with an unnecessarily standardized "one size fits all" or formulaic approach. The study also demonstrates that schools can successfully utilize the process without outside training, facilitation, or technical assistance. This establishes the opportunity for immediate use and minimizes costs. Combined, such information allows school leaders to preview the tool and consider the findings and implications to help determine whether *A Guide to Schoolwide Planning for Paraeducator Supports* would be beneficial to implement in their own settings.

As school personnel consider addressing first-generation paraeducator issues using a

schoolwide paraeducator planning process, we encourage them to approach the task as a sustained cycle of planning, implementation, and evaluation so that early successes are followed-up by tackling more complex, second-generation issues and beyond. Second, we strongly encourage schools to think of the schoolwide paraeducator planning process as supportive of one of two main tracks for improving special education services for students with disabilities in general education settings. Although this process is well suited to assisting schools in strengthening their paraeducator supports and practices, we reiterate our earlier concern that merely strengthening paraeducator supports is insufficient and may inadvertently interfere with providing students with disabilities a free, appropriate education. The second track is to consider a variety of options that create working conditions and opportunities for students with disabilities to receive more of their instruction from qualified teachers, special educators, and related services personnel within the context of general education class activities alongside their peers without disabilities. This means exploring the attitudes, knowledge, skills, and working conditions of teachers and special educators along with corresponding supports and service delivery alternatives (e.g., co-teaching, differentiated teacher roles, peer supports). By attending to both tracks we can increase the probability of positive outcomes and reduce the inherent risks associated with over utilizing or inappropriately utilizing paraeducator services.

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