

Determining When a Student Requires Paraeducator Support

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How should district and school teams decide when they need to hire paraeducators, or teaching assistants? When should the individualized education program (IEP) require the use of paraeducators? How do schools prevent overreliance on paraprofessionals? How can they encourage communication among educators and paraeducators and prevent burnout among paraeducators?

To address some of these issues (see box, “What Does the Literature Say?”), we developed a process to help IEP teams determine when to assign paraeducators to support students with disabilities. This article outlines the rationale for developing the process and then describes the formal, decision-making model, its benefits, and its effects.

Rationale and Setting

The model originated in the Chittenden Central Supervisory Union (CCSU), a school district in northeastern Vermont, comprised of approximately 3,500 students (Murphy, 1998). In 1988, in response to Vermont’s emphasis on inclusion, the district began to adopt an inclusionary approach to educating stu-

IEP teams need to review what students need in terms of paraeducator support.

dents with disabilities. At that time, the district employed 21.5 special educators and 10 paraeducators. By 1999, there were 25.5 special educators and 58 paraeducators employed in the district. This represented a 19% increase in special educators and a 480% increase in paraeducator staff in the 11-year time period. In part, this growth resulted from the availability of resources and the district’s commitment to quality services.

Although the district had an effective team structure for each student, the rapid increase in the number of students and accompanying paraeducators greatly affected the service delivery system. Supervising special educators lacked the time and ability to adequately supervise

and monitor the work of paraeducators responsible to them. There was a concomitant decrease in communication between special and general educators as paraeducators assumed responsibility as the “mediator” between the two groups of teachers. The response to the need for increased related services and paraeducators drove costs ever higher, constricting the capacity to augment the professional staff. This model of delivering services drove the district into a spiral where they were increasingly dependent on paraeducators, but less able to supervise them.

In 1997, the district began to encounter concerns from some classroom teachers and parents that some of the students with disabilities did “not seem to fit in.” To investigate these concerns, the administration conducted an evaluation of the elementary grades, which determined that the concern was specific to the area of peer interactions, but only at the upper elementary grade levels. Such concerns were absent in Grades 1 and 2, where teachers and parents tended to emphasize academics, safety, and functional skill acquisition;

Paraeducators are valuable members of the educational community and a necessary resource for students.

What Does the Literature Say About Paraeducators in Inclusive Classrooms?

Since the advent of the Education for Handicapped Children Act (Public Law 94-142) in 1975 (now the Individuals with Disabilities Education Act, IDEA), increasing emphasis has been placed on including students with disabilities in general education classrooms. Typically, to provide what some educators call “responsible inclusion,” schools assign some students with severe disabilities a paraeducator (also known as a “teacher assistant” or “paraprofessional”) to support them in the general education environment. The size of the paraeducator work force continues to climb as schools and districts place more students with disabilities in programs alongside their peers without disabilities (Pickett, 1999). The focus of this article addresses the need for a comprehensive decision-making model for determining supplementary aids and services (Etscheidt & Bartlett, 1999).

Recent research into this model has pointed to the potential damage to students when schools rely too much on paraeducators (Giangreco, Edelman, Luiselli, & MacFarland, 1997; Marks, Schrader, & Levine, 1999). These studies suggested that too much of a good thing (paraeducator support) can have far-reaching effects on the following:

- The classroom teacher’s ability to assume ownership for the student.
- The frequency and types of peer interactions the student has.
- The student’s ability to become an independent learner.

Research on the paraprofessional role in inclusion has also shown that paraeducators often assume too much responsibility for the student, bond with students to the point of becoming overprotective, inadvertently interfere with the student’s social interaction goals, and are viewed by parents and educators as the student’s primary teacher (Downing, Ryndak, & Clark, 2000; French & Chopra, 1999). In addition, Mueller (1997) witnessed high turnover rates as paraeducators burned out from increased reliance on them as the sole resource for implementing complex student programs while receiving little or no training to do so. Finally, the authors witnessed their special education budgets inflate as paraeducators were hired due to the belief that the only way a student could successfully be included in a general education classroom was to have adult support (Giangreco, Broer, & Edelman, 1999).

social interaction and skill development were downplayed. By the time students reached fourth grade, however, when students tend to identify with a social network, educators perceived that some students with disabilities who were included in the general education program were only marginally successful because of their lack of social skills. Although not a pervasive problem, this was a signal that something was wrong; therefore, the district conducted a more intensive review of how paraeducators interacted with students. This analysis revealed that paraeducators were successful at helping students meet most academic goals, but there was little evidence of paraeducators being involved in enhancing a student’s social goals.

Parents who viewed success as achieving academically tended to communicate this to paraeducators; thus, these students were the least equipped socially. Also, parents tended to demand the maximum coverage (by adults) for their children, thereby inhibiting the use of natural peer supports even further.

Confusion also existed as to the paraeducator’s role in assisting the student to be included with his or her peers to the maximum extent possible. Some staff and parents tended to view paraeducators as individual tutors rather than dynamic agents of change, interacting in a much broader capacity by facilitating peer and adult interactions. So, regardless of the parameters put in place to structure the paraeducator’s role, their function was subtly adjusted through day-to-day contact with the teacher and parent. A powerful filtering mechanism was at work that was undermining the integrity of the program, and it was not sufficiently obvious until fourth grade.

Out of this research and discussion, the district established the need to

devise a formal decision-making model that would address the focus of the paraeducator’s role. In addition to the IEP, the district wanted the model to provide a process and a recording document to ensure that all involved shared a common understanding of how the paraeducator was to function, and one that acknowledged the critical component of peer interaction. This was, perhaps, most important for the paraeducator.

The Planning Process and Instrument

The planning process applies to any student who requires paraeducator support for 50% or greater during the day. The student’s IEP team develops the plan annually in sync with his or her annual

We developed a process to help IEP teams determine when to assign paraeducators to support students with disabilities.

review, and teams reconvene to discuss any amendments to the plan should the student's support needs change over the course of the year. The process is founded on the following assumptions that we have about paraeducators and the services they provide:

- Paraeducators are valuable members of the educational community and a necessary resource for students.
- Paraeducators are not surrogate teachers.
- The intent of support services is to promote independence, not dependence.
- Paraeducator assignments should be based on need, as specified by the IEP team, consistent with law and local policy.

What follows is a decision-making model that attempts to have all stakeholders on the same page and focused on goals that are objectively determined. Its focus is to determine the role of the paraeducator in relation to

- The specific support needs of the student.
- How independence can be progressively furthered.
- What natural supports are to be used to support the student.
- How social acceptance can be increased.

All of this can be accomplished through a progressive planning matrix that helps those involved recognize and “protect” the essential components of successful inclusion.

The instrument is divided into three parts. The IEP team, including the paraeducator, where applicable, completes the instrument.

1. The *Intensive Needs Checklist* is designed to assist in developing an overview of the student's needs in direct relation to the classroom environment. Completion of the checklist helps focus discussion, especially on more critical issues such as safety (see Figure 1).
2. The *Student's Abilities and Assistance Needs Matrix* focuses specifically on what the student can, or cannot, do and the extent to which he or she needs assistance. The objective is to systematically review

Figure 1. Intensive Needs Checklist

1.	Is there a safety concern for self or others? Please describe.	Yes	No
2.	Does the student require continual teacher prompts: during instruction and/or after instruction (e.g., during independent work)?	Yes	No
3.	Does the student require assistance with basic functional skills?		
	toileting	Yes	No
	mobility	Yes	No
	feeding	Yes	No
	dressing	Yes	No
	following basic safety rules	Yes	No
4.	Is the student's performance consistent with his or her aptitude?	Yes	No
5.	Do his or her peers include the student in classroom activities?	Yes	No
	Is the student receptive to peer tutoring and support?	Yes	No
6.	Is the student currently receiving specialized small or individualized group instruction in specific academic areas? Please describe.	Yes	No
7.	Please note what interventions or program changes you have tried and describe their rate of success (e.g., cooperative learning, behavior management plan, re-grouping within the classroom, pairing with other students).		
	If these interventions are not an option, please explain why.		
8.	Has an administrator observed the student?	Yes	No
9.	Does the team recommend that this position be job-shared? If yes, why?	Yes	No

Date of Review: _____ Date Amended: _____

Team Members: _____

A student's program should include other powerful, natural supports, such as peer modeling, thereby enhancing the student's independence and social acceptance.

Figure 2. Student's Abilities and Assistance Needs Matrix

<i>Activity</i>	<i>What student can do without assistance</i>	<i>What student cannot do and needs accommodation to complete</i>	<i>What student cannot do and needs assistance with</i>	<i>Identify areas to promote social acceptance and how peers will be utilized</i>	<i>Identify areas you will target for independence (should be identified in IEP)</i>
Arrival/Time					
Period 1/Time					
Period 2/Time					
Period 3/Time					
Period 4/Time					
Lunch/Time					
Recess/Time					
Period 5/Time					
Period 6/Time					
Period 7/Time					
Period 8/Time					
Departure/Time					

Figure 3. Plan for Paraeducator Assistance

<i>Specify Class Activity</i>	<i>Identify need for paraeducator</i>	<i>Identify areas to increase socialization (utilize natural supports, peers)</i>	<i>Identify how independence will be encouraged</i>	<i>Total time needed for paraeducator support</i>	<i>Total anticipated time reduction in paraeducator support by annual review</i>

the student's entire day (see Figure 2).

3. The *Plan for Paraeducator Assistance* identifies where, when, and how the paraeducator will provide support and how the team will encourage independence in the student (see Figure 3).

In completing all three parts of the instrument, the team will have undertaken a thorough review of what the student needs in terms of paraeducator support. They will have systematically ensured that the school provides support according to real versus perceived

need. Last, the team will have addressed facilitating social acceptance and academic learning by progressively reducing restrictive supports and ensuring that the student's program includes other powerful, natural supports, such as peer modeling, thereby enhancing

the student's independence and social acceptance.

Benefits and Effect of the Planning Process

Although in its infancy, the use of this process has affected students, staff, families and budgets. Evaluation conducted among special educators assigned to the respective teams yielded

sound support for the process. Individuals consistently identified that the decision-making model allowed them to address the often-contentious subject of how much support a student should receive and the specific nature of that support in an organized fashion. The structure provided by the forms offered parents and classroom teachers a clear understanding that the decision

to provide support was *student* centered (e.g., promoting independence, enhancing peer relations, maximizing opportunities for academic and social learning). The notion that the district was trying to save money ceased to be an issue once administrators and educators introduced this model.

By having team members intentionally discussing and documenting the role and function of the paraeducator, districts experienced an increased awareness of the roles and responsibilities of those involved with the student (i.e., general and special educators, paraeducators, peers, and family members). Such documentation also explicitly shows the extent to which paraeducator support is necessary for each student. This is a vital component to responsible inclusion. The intent is to provide teams with a structure that requires team members to address alternative or natural supports. These supports are important to ensure quality peer interactions that facilitate a sense of belonging, enhance actual student learning, and promote incipient friendships—the cornerstones of effective and successful inclusion. This directed outcome enables paraeducators to gain a clearer understanding of their role in helping or hindering student independence and social growth. Last, the process provides for increased accountability for the rising use of paraeducators to support inclusion. Assignment of paraeducators to support students is increasingly judicious and, in the case of CCSU, the budget spiral has ended.

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Yes, I Can!

Empowering Paraprofessionals to Teach Learning Strategies

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Paraprofessionals are an important part of the instructional team for students with disabilities. As recently as 10 to 20 years ago, a paraprofessional was often “just an aide.” The primary job duties for most paraprofessionals included making copies, monitoring students during lunch, and taking attendance. The Individuals With Disabilities Education Improvement Act (IDEA 2004), emphasizes the importance of learner-centered instruction to meet the needs of children with diverse abilities and learning styles. As a result of this act, the roles and responsibilities of paraprofessionals began to change. Although paraprofessionals still perform routine housekeeping and clerical tasks, they also review and reinforce lessons.

Today, their jobs look more like those of teachers: Paraprofessionals help with instructional tasks and sometimes teach small groups of students. Paraprofessionals working in special education settings sometimes spend the entire school day providing support in a broad range of academic areas to a student

with disabilities. They may support students who are members of a general education class in such subjects as language arts, biology, or history. As a result of the change in job duties, paraprofessionals’ job titles have changed as well. Instead of *teacher aides*, they have become *paraprofessionals*—a term that reflects a position with more professional expectations. As paraprofessionals participate in more instructional roles in the classroom, the need for professional development to assist them in performing their very important duties has increased (see box, “What Does the Literature Say About the Need for Professional Development for Paraprofessionals?”).

What Types of Professional Development Do Paraprofessionals Need?

The role of the paraprofessional in classroom instruction has become so important that researchers and professional organizations have distinguished the role of the paraprofessional from that of

the teacher by identifying numerous areas in which paraprofessionals should receive specialized training. Lasater, Johnson, and Fitzgerald (2000) identified the following areas in which paraprofessionals should receive training:

- Roles and responsibilities.
- Learner characteristics.
- Cultural diversity.
- Data collection.
- Behavioral and instructional strategies.
- Health-related issues and procedures.

In addition, Lasater and her colleagues (2000) also emphasize the need for paraprofessionals to have the opportunity to develop effective instructional and behavior improvement strategies. Professional development should be “an ongoing process, where paraeducators can return to discuss their experiences in implementing these strategies, explore the pros and cons of various

What Does the Literature Say About the Need for Professional Development for Paraprofessionals?

Many paraprofessionals who assist with instructional tasks do not receive the training that they need so that they can be successful at these tasks (Killoran, Templeman, Peters, & Udell, 2001). Furthermore, the training that they receive is often infrequent, may not be part of a thorough professional development system, and often is not competency-based (Pickett, Likins, & Wallace, 2003).

The development of paraprofessionals has become a focus for school districts primarily because of the “highly qualified” requirements of the No Child Left Behind Act of 2001 (NCLB, 2002) and the Individuals With Disabilities Education Improvement Act which was reauthorized in 2004. To be highly qualified, a paraprofessional must have earned at least 60 credit hours beyond a high school diploma or pass a state-identified assessment process (Likins, 2003). Although the requirements for highly qualified status may lead people to believe that paraprofessionals are receiving training to do their jobs, that is often not the case (Johnson, Lasater, & Fitzgerald, 1997; Riggs, 2001). Paraprofessionals need professional development that does not exist just to give them something called *professional development* but that instead strives to teach them to perform their specific jobs.

strategies, and problem solve with partner teachers and other paraeducators” (Lasater et al., p. 48). Training and development for paraprofessionals has become so vital that such professional organizations as the Council for Exceptional Children (CEC, 2003) developed standards to guide the field. CEC identified 10 areas in which paraprofessionals should have basic knowledge and skills (see box, “Paraprofessional Knowledge and Skill Areas”), and many colleges and school districts are working diligently to implement these standards.

Why Do Paraprofessionals Need Professional Development in Learning Strategies?

Lasater et al. (2000) emphasized knowledge and skills about instructional strategies and learning strategies as an important area for paraprofessional training and development. A *learning strategy* is any approach to completing a task that an individual uses independently. Specifically, it is a way to organize and use a set of skills to accomplish a task more effectively and efficiently in academic and nonacademic settings (Deshler & Schumaker, 1986).

Three common types of learning strategies are rehearsal, elaboration, and organization. *Rehearsal* strategies include repeating information over and over or highlighting information in a book. *Elaboration* strategies add to or extend information. Examples of elaboration strategies include singing a song to help remember information, using mnemonic devices, and making a picture from the new information. Grouping, chunking, and outlining information are all examples of *organization* strategies.

Learning strategies benefit all students by helping them retain information and by improving their attitudes and their motivation for learning. These strategies especially help low-achieving students and students with disabilities, who often do not take an active role in their own learning (Torgeson, 1977). The purpose of strategy instruction is to provide students with metacognitive tools that they can use on their own to become more independent learners (Swanson & De La Paz, 1998).

Paraprofessionals who assist low-achieving students and students with disabilities work closely (frequently one-on-one or in small groups) with these students to reinforce classroom learning. They are an ideal resource for teaching and reinforcing the use of learning strategies. Because paraprofessionals often supervise students in the hallways, lunchroom, and various other social situations, they can profit from developing, teaching, and reinforcing social learning strategies for the students whom they supervise. However,

Paraprofessional Knowledge and Skill Areas

The Council for Exceptional Children (2004) has identified the following paraprofessional knowledge and skill areas:

- Foundations of special education.
- Development and characteristics of learners.
- Individual learning differences.
- Instructional strategies.
- Learning environments and social interactions.
- Language.
- Instructional planning.
- Assessment.
- Professional and ethical practice.
- Collaboration.

paraprofessionals often do not have the necessary knowledge and skills to use learning strategies with these students.

How Do We Empower Paraprofessionals?

As part of a university/community college/district initiative to support paraprofessionals, we implemented a professional development series to teach them to use learning strategies. Because activity-based training can enhance the skills of paraprofessionals, especially when such training is combined with fieldwork (Blalock, 1991), our program combined these two elements. In a 2-day make-and-take workshop, 25 paraprofessionals learned how to develop and teach learning strategies to the students with whom they work.

Day 1

On the first day, we defined learning strategies, reviewed several types, and discussed why they are important for students to learn and use. We then modeled creating an original learning strategy for a student and teaching it. We asked the paraprofessionals to identify a student or small group of students who could benefit from a strategy to learn a simple task or skill. We suggested that they consider students who repeatedly needed reminders to complete a task

Table 1. Learning Strategies That Paraprofessionals Created

SOUND

Sound it out.
Open your eyes, and look at the pictures.
Use context clues.
Now chunk the word.
Don't give up.

SOUP

Stay in your seat, and raise your hand.
Obey the adults, and follow directions.
Use your inside voice.
Pick up after yourself.

MANNERS

Maintain quiet.
Able to work.
Never touch your friend's supplies.
Need to pay attention.
Enjoy your class activities.
Raise your hand to talk.
Sit properly.

BACKUP

Be sure to keep your head up.
Always lean back.
Clasp your hands together on your desk.
Keept your feet on the floor.
Use good posture.
Praise yourself for sitting up straight.

such as walking in line correctly or behaving appropriately in the lunchroom. Each paraprofessional then created an original strategy for the student or group of students by using the steps in a strategy we called *CREATE* (see box, “How to CREATE an Original Strategy”).

The steps in the *CREATE* strategy are as follows:

- Choose a learning outcome or goal (for example, appropriate lunchroom behavior).
- Remember to task analyze. Break the task down into manageable steps.
- Eagerly put the steps in sequential order, which involves arranging the

steps into a logical sequence for the students to follow.

- Always make it simple and easy to remember. In the lunchroom behavior example, the paraprofessional might choose the acronym LUNCH.
- Try to choose action words that match your title by using synonyms. The first words in each step should be action words. Paraprofessionals identify synonyms that match the title of their strategies. In the lunchroom example, for instance, “line up quietly” might be the first step of the LUNCH strategy).
- Extend the learning by making a cue card for the student to use independently. This cue card should list all the steps and should include a catchy picture to help the students remember the strategy steps. Again using the LUNCH strategy as an example, the cue card might display a picture of a lunch tray.

After the paraprofessionals created a learning strategy, we presented the paraprofessionals with the following model to teach learning strategies.

- Review the skills needed to perform the strategy and ensure that the students know how to perform them.
- Tell the students that they are going to learn a strategy that will help

them with a new skill—for example, reading new words.

- Tell the students why the strategy is important to use, and tell them when to use it.
- Present the strategy to the students, and practice each step.
- Model how to use the strategy by using “thinkalouds,” which are oral statements that describe what the person who is performing the strategy is thinking.
- Ask the students to practice using the new strategy several times, and provide feedback.

How to CREATE an Original Strategy

Choose a learning outcome or goal.

Remember to task analyze.

Eagerly put the steps in sequential order.

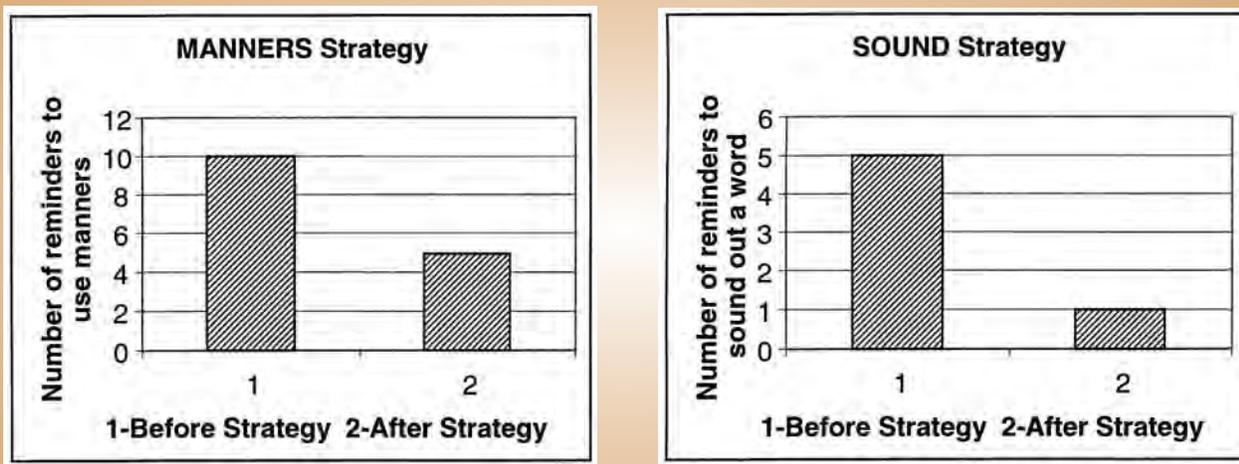
Always make it simple and easy to remember.

Try to choose action words that match your title by using synonyms.

Extend learning by making a cue card for students to use independently.



Figure 1. Student Strategy Use



- When the students are ready, ask them to perform the skill on their own.
- Remind students to use the strategy each day.

For homework between the two training sessions, we asked the paraprofessionals to return to their classrooms, think of how often they helped their students perform the skill that their strategies addressed, and then jot that number down. Paraprofessionals then taught the strategy and encouraged their students to use it each day for the next 5 or 6 days. The paraprofessionals then counted the times they helped their students perform the skill at the end of the 5-to-6-day period and recorded that number, as well.

Day 2

A week and a half after the initial workshop, the paraprofessionals returned with their homework assignments, as well as their data showing how often they helped the students perform the skill before and after implementing the strategy. The paraprofessionals then shared their original strategies with the group and described challenges that they faced while developing or implementing their ideas. As a result of their workshop participation and activities back at their schools, all the paraprofessionals

created original learning strategies for their students. Several of them told inspirational stories describing how they taught their students to use the strategies that they had created.

Learning Strategies That the Paraprofessionals Created

All the paraprofessionals produced learning strategies that matched the criteria that we gave them. Table 1 highlights four of these original strategies.

SOUND

One of the paraprofessionals, Shari, created a strategy with the acronym *SOUND* to help a sixth-grade student with developmental disabilities read unknown words.

- The first letter of Shari's strategy, S, stands for "Sound it out": the student phonetically sounded out the unknown word.
- The second step starts with O, which stands for "Open your eyes, and look at the pictures." This step asked the student to look for pictures in the reading passage to help her figure out the unknown word.
- The third letter, U, reminded the student to "Use context clues," such as rereading the sentence and selecting a word that made sense in the sentence.

- The student next used the step that begins with N, "Now chunk the word," by looking for smaller words or letter combinations to help her read the unknown word.
- Finally, the student used the step that began with the letter D, "Don't give up." This statement motivated the student to keep trying and not give up on reading the unknown word.

Several of them told inspirational stories describing how they taught their students to use the strategies that they had created.

Before Shari taught the *SOUND* strategy, she had to remind her student five times during reading to sound out the word and look at the pictures. After Shari taught *SOUND*, she only had to remind the student once to use the strategy (see Figure 1). Shari reported that she really enjoyed teaching the *SOUND* strategy because it saved her from having to repeat the steps to her student. Even more important to Shari was that the student was able to use the *SOUND* strategy on her own.

MANNERS

Lucile, a paraprofessional working with an eighth-grade student with developmental delays, devised a strategy called *MANNERS* to help her student use proper manners in the classroom.

- The first step, “Maintain quiet,” reminded the student to stay quiet while the teacher was talking.
- The next step, “Able to work,” reminded the student that if he remained quiet, he would be better able to complete his work.
- The third step, “Never touch your friends’ supplies,” told him to keep his hands to himself and only touch his own belongings.
- The fourth step, “Need to pay attention,” prompted him to look at the teacher and listen carefully.
- The fifth step, “Enjoy your class activities,” told the student to have fun while learning.
- The sixth step, “Raise your hand to talk,” reminded the student to raise his hand before asking the teacher for help.
- The final step “Sit properly,” helped the student remember to complete his work at his desk and to sit straight with his head up.

Before she taught *MANNERS*, Lucile had to remind the student to be quiet and pay attention at least 10 times each period. After she taught him *MANNERS*, she only had to remind him five times to use the strategy (see Figure 1). Lucile stated that she enjoyed teaching the strategy because she was “helping with the students’ behavior and good manners.”

SOUP

Maribelle, a paraprofessional working with first-grade students, developed a strategy that she called *SOUP* to help her class use appropriate behavior in the cafeteria.

- The first step, “Stay in your seat and raise your hand,” reminded the students to remain in their lunchroom seats and raise their hands if they had questions or needed assistance with their meals.

How Did Teachers Respond to This Professional Development Experience?

Many of the paraprofessionals who participated in this initiative shared their successes during the follow-up session.

- One of the paraprofessionals, Monica, stated, “I got him [her student] to talk less during class” when asked what went well with the strategy she created. When asked what the teacher with whom she worked thought about her strategy, Monica reported that her teacher felt “great, because she did not have to stop the lesson as often as she used to because of [the student’s] behavior.”
- When we asked Sammy, the paraprofessional who created *BACKUP*, how the teacher responded to the strategy, Sammy declared, “She gave me the opportunity to try this strategy with confidence.”
- We also asked Lucile, who created *MANNERS*, what the teacher thought about the strategy. Lucy replied that the teacher was “happy, because I’m helping with the student’s behavior and good manners.”

- The second step in *SOUP*, “Obey the adults, and follow directions,” prompted the students to follow adults’ requests and directions in the cafeteria.
- The third step, “Use your inside voice,” helped students remember to use a quiet voice when talking in the cafeteria.
- The final step, “Pick up after yourself,” told the students to pick up their napkins, silverware, and lunch trays and bring them to the proper place.

Before Maribelle developed and taught the *SOUP* strategy, she had to remind the students to raise their hands, stay in their seats, and use their inside voices many times during lunch. She remarked that the class had fun with the

SOUP strategy and that most of the students followed the steps. Mirabelle mentioned that the students even reminded one another to use the strategy.

BACKUP

Sammy, a paraprofessional working one-on-one with a fourth-grade student with cerebral palsy, developed and taught the final example, *BACKUP*. She designed the *BACKUP* strategy to help her student remember to sit up in his wheelchair.

- The first letter, B, stood for “Be sure to keep your head up” and prompted the student to hold his head up while sitting in his chair.
- The second step was “Always lean back,” a reminder to lean back in his wheelchair so that he did not slide out of it.
- The third step “Clasp your hands together on your desk,” asked the student to keep his hands still instead of playing with things on his desk (a habit that became increasingly annoying to students working around him).
- The fourth step, “Keep your feet on the floor,” told him to keep his feet on the floor to help him maintain balance in his chair.
- The fifth letter, U, stood for “Use good posture” and was another reminder to sit up straight in the wheelchair.
- The final letter used in this strategy was P, for “Praise yourself for sitting up straight.” This statement prompted the student to reward himself for using the strategy.

Before Sammy taught *BACKUP*, she had to remind the student to sit up, lean back, and keep his feet on the floor several times an hour. After she taught him the *BACKUP* strategy, he remembered to use the strategy when she showed him the cue card. Sammy stated, “After teaching him the *BACKUP* strategy, he was able to correct his posture by himself as soon as he saw me showing him the card.”



Final Thoughts

Paraprofessionals are indispensable members of a special education team and can give significant support to the classroom teacher and to students with special needs. Providing paraprofessionals with useful professional development demonstrates to these individuals that they are valued and vital members of the instructional team. Teachers and administrators can use the steps given in the box “How to CREATE an Original Strategy” to help paraprofessionals develop and use learning strategies with their students and to empower them to take on important instructional roles with students.

Paraprofessionals are indispensable members of a special education team and can give significant support to the classroom teacher and to students with special needs.

Giving a strategy to a student often enables him or her to function more independently. This, in turn, can make the jobs of both teachers and paraprofessionals easier and more enjoyable. Most of the paraprofessionals at the workshop indicated that they were very enthusiastic about developing and teaching learning strategies. Their new skills and knowledge helped their students and the teachers with whom these paraprofessionals worked (see box, “How Did Teachers Respond to This Professional Development Experience?”).

Paraprofessionals are a valuable resource for meeting the needs of students with special needs. Training can enable paraprofessionals to implement various educational techniques, including learning strategies, with their students. When they implement these techniques, paraprofessionals can help students expand their potential while the students become more independent learners.

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Perspectives of Students With Intellectual Disabilities About Their Experiences With Paraprofessional Support

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ABSTRACT: *Perspectives of students with disabilities are notably absent from research about special education paraprofessionals. This study begins filling that gap by interviewing 16 young adults with intellectual disabilities about their experiences attending general education classes with paraprofessional support. Findings describe the primacy and exclusivity that often exists between paraprofessionals and these students as characterized by four interrelated themes regarding consumer perspectives of paraprofessionals as: mother, friend, protector, and primary teacher. Although study participants provided both positive and negative perspectives on these four descriptors, each descriptor represents cause for concern.. Implications for practice encourage schools to (a) consider the social validity of supports, (b) increase teacher involvement, (c) highlight the importance of listening to students with disabilities, and (d) include them in decisions about their own supports.*

More students with a wider range of disabilities, including those with low-incidence disabilities (e.g., intellectual disabilities, autism, multiple disabilities), are receiving part or all of their instruction in the same classrooms as their peers without disabilities (McGregor Vogelsberg, 1998). The use of paraprofessionals in public schools has become one of the primary mechanisms by which students with disabilities are being supported in general education classes (Giangreco, Edelman, Broer, & Doyle, 2001). Therefore, it is not surprising that there has been a substantial increase in the number of paraprofessionals hired to support students with disabilities (French, 2003). Correspondingly, there has been an increase in the amount of research de-

voted to paraprofessional issues. We identified 23 studies about special education paraprofessionals published between 1997 and 2004. Although these 23 studies focused on students in the United States, paraprofessional issues are being studied in other countries as well, such as Australia (Hall & Macvean, 1997); Sweden (Hemmingsson, Borell, & Gustavsson, 2003; Skar & Tatum, 2001); and the United Kingdom (Cremin, Thomas, & Vincett, 2003; Lacey, 2001).

Of the 23 U.S. studies, only 4 involved interventions with a combined total of 14 students (Causton-Theoharis & Malmgren, (2005); McDonnell, Johnson, Polychronis, & Risen, 2002; Werts, Zigmond, & Leeper, 2001; Young, Simpson, Myles, & Kan-Ts, 1997). Two others were evaluation studies of a schoolwide planning process to improve paraprofessional supports (Giangreco, Broer, & Edelman, 2002a; Giangreco, Edelman, & Broer, 2003); and one was an evaluation of paraprofessional training materials (Giangreco, Backus, CichoskiKelly, Sherman, & Mavropoulos, 2003).

The remaining 16 studies were all descriptive investigations. Eight studies were qualitative (Downing, Ryndak, & Clark, 2000; French & Chopra, 1999; Giangreco, Broer, & Edelman, 2001; Giangreco, Edelman, & Broer, 2001; Giangreco, Edelman, Luiselli, & MacFarland, 1997; Marks, Schrader, & Levine, 1999; Morgan, Ash-baker, & Allred, 2000; Tillery, Werts, Roark, & Harris, 2003). Four studies were quantitative (French, 2001; Hadadian & Yssel, 1998; Minondo, Meyer, & Xin, 2001; Wallace, Shin, Bartholomay, & Stahl, 2001), and 4 relied on combining quantitative and qualitative methods (French, 1998; Giangreco, Broer, & Edelman, 2002b; Riggs, 2001; Riggs & Mueller, 2001). All 16 studies obtained the perspectives of various stakeholders (e.g., teachers, special educators, paraprofessionals) about a variety of paraprofessional issues (e.g., roles, training, supervision). Paraprofessionals were participants in nearly 90% of the investigations ($n = 14$); all other respondent groups were represented in no more than 44% of the studies ($n = 7$). Paraprofessionals represented nearly 70% of the total number of participants across these 16 studies. Approximately 25% of the respondents were direct service professionals (e.g., teachers, special

educators); 3% were administrators; and *less* than 1% were parents. None of the U.S. studies included the voices of students with disabilities about their own experiences receiving paraprofessional supports.

This study describes the perspectives of young adults with intellectual disabilities about their experiences receiving paraprofessional supports in general education classes and addresses a gap in the literature. No other studies to date have described the perspectives of the persons most affected by paraprofessional supports, individuals with intellectual disabilities themselves. Two studies conducted in Sweden have reported on the paraprofessional perspectives of children and adolescents with orthopedic disabilities. Skar and Tamm (2001) conducted semistructured interviews with 13 children, ages 8 to 19, with restricted *mobility*. They reported on students' perceptions about their relationships with paraprofessionals as mutual, nonmutual, ambivalent, and unequal. For example, some students felt it was nonmutual and unequal, that they had to disclose personal information about themselves to unfamiliar people (e.g., "They [the assistants] know everything about me, but I hardly know anything about them. They barge right into my life."; p. 922). Hemmingsson et al. (2003) interviewed and observed 7 students with physical disabilities, ages 7 to 15. They reported that assistants could both hinder and facilitate participation and concluded that being aware of the importance that students with disabilities placed on social participation was necessary to ensure effective supports.

Exploring perspectives of former students can yield important information about service delivery issues that can inform schools that are seeking to extend inclusive opportunities to greater numbers of students with disabilities. Examining paraprofessional support through the eyes of former students creates opportunities to (a) develop a better understanding of the impact paraprofessional supports have on students with disabilities, (b) compare priorities and concerns included in the professional literature with those identified by individuals with disabilities, and (c) explore new areas of inquiry to improve outcomes for students with disabilities.

METHOD

DESIGN

This descriptive study utilized a qualitative design involving semistructured interviews that explored the experiences and perspectives of participants who were receiving paraprofessional supports in general education classrooms.

PARTICIPANTS

Participants were identified with the assistance of two advocacy organizations in Vermont, Green Mountain Self-Advocates (GMSA) and Champlain ARC. The study included a purposeful sample of 16 young adults with intellectual disabilities. See Table 1 for demographic information (e.g., gender, age, disability, employment). All of the participants were verbal and had sufficient language abilities to respond to interview questions with descriptive responses (e.g., they could recall and describe events and perspectives). All participants received special education throughout their school years and paraprofessional support in general education classes. The extent to which study participants were enrolled in general education classes with support varied, ranging from full-time membership throughout their school years to a few high school classes (e.g., American History, Band, Biology, Choir, Computer, Earth Science, English, Health, Home Economics, Math, Outdoor Leadership, Photography, Physical Education).

All participants completed high school within the past 5 years with the exception of the youngest participant, who was in her last 2 months of school, and the oldest participant, age 29, who was included at the recommendation of GMSA because she had strong memories and perspectives on her school experiences that she wanted to share. We purposely sought respondents who had completed school to minimize the risk that participating in the study might compromise existing relationships with paraprofessionals and to increase the likelihood that these former students would speak freely about their experiences. We had been advised by GMSA that power relationships that sometimes exist between adults and students might cause some respondents to be less than forthcoming if they were still in school.

Participants attended a total of 11 different high schools in northern and central Vermont. Nine participants attended 9 different high schools. Four students attended a 10th high school with overlapping years of attendance that spanned 4 different completion years. Three others attended the 11th high school with overlapping years of attendance that spanned 2 different completion years. The paraprofessionals who supported these students while they were in high school were all different individuals with two exceptions. The school that included 4 participants had one paraprofessional who supported 3 of the students, though in different years. The school that included 3 participants had one paraprofessional who supported 2 of the students, though in different years.

PROCEDURES

When interviewing individuals with intellectual disabilities, an important consideration is their capacity to remember experiences, in this case from their school years. The three-person research team addressed these interviewing challenges by first identifying and reviewing literature about memory. In part, it indicated that there is wide variability of memory characteristics among individuals with intellectual disabilities (Hale & Borkowski, 1991; Turnure, 1991). However, some researchers have found stable aspects of memory across a range of age and cognitive variables (Krinsky-McHale, Devenny, Kittler, & Silverman, 2003).

Additionally, we studied general issues about interviewing individuals with intellectual disabilities such as problems associated with (a) understanding questions, (b) responding to open-ended questions, (c) repeatedly giving the same answer to different questions, (d) pleasing the interviewer by saying what they think the interviewer wants to hear, and (e) significant others influencing or filtering participant responses during interviews (Biklen & Moseley, 1988; Walker 1999). We met as a group three times prior to conducting any interviews to discuss the literature, heighten our awareness of the issues (e.g., acquiescence), and develop a plan to incorporate suggestions from the literature into our interview protocol (e.g., build rapport, repeat, rephrase, as-

TABLE 1*Participant Information*

Name (Pseudonym)	Gender	Age	Level of Intellectual Disability and/or Other Known Condition	Living Arrangement	Current Employment Status	Support Person at Interview
Cindy	F	19	Mild/EBD	Nuclear Family	Unemployed	Mother
James	M	20	Mild-Moderate	Adult Family Care	Unemployed	Provider
Bart	M	21	Moderate/DS	Adult Family Care	Supported PT	None
Douglas	M	21	Mild-Moderate	Adult Family Care	Unemployed	Provider
Donald	M	22	Moderate	Small Group Home	Unemployed	Provider
Harriett	F	22	Moderate/EBD	Extended Family	Unemployed	Aunt
Bruce	M	23	Mild-Moderate	Nuclear Family	Supported PT	Mother
Caleb	M	23	Moderate/DS	Nuclear Family	Supported PT	Mother
Paul	M	23	Moderate/DS	Nuclear Family	Supported PT	Mother
Samuel	M	23	Mild/Prader-Willi	Nuclear Family	Supported PT	Mother
Carter	M	24	Moderate /DS	Supported Apartment	Supported PT	Mother
Diane	F	24	Moderate/ EBD	Apartment on Own	Unemployed	Friend
Samantha	F	24	Moderate/DS	Nuclear Family	Supported PT	Father
Patrick	M	26	Mild-Moderate	Apartment on Own	Competitive FT	Mother
Nancy	F	27	Moderate	Adult Family Care	Supported PT	Provider
Robin	F	29	Mild	Extended Family	Unemployed	Provider

Note. DS = Down syndrome; EBD = Emotional Behavioral Disorder; PT = Part-Time; FT = Full-Time

sure confidentiality, break questions into smaller parts, clarify role of support person).

We mailed prospective participants information about the study, a consent form to sign, and a one-page information form to be completed (e.g., name, age, date of high school completion, list of high school general education classes attended, names of paraprofessionals and teachers). Participants were also asked whether they preferred to be interviewed individually or have an advocate present. All materials were returned in a self-addressed, postage-paid envelope provided by the researchers.

We screened each submitted *set* of materials to ensure that the participants were recent graduates and had participated in general education classes with paraprofessional support to some extent. Then the first author spoke with prospective participants by telephone to verify their capacity to recall and communicate educational experiences. He used the questions from the one-page information form as the basis for a brief conversation to ascertain the individual's ability to be interviewed. For example, he asked questions like: "Where did you go to high school?" "What year did you finish?" "What classes did you take?" "Do you remember the names of your teachers?" "Do you remember people who helped the teachers? They might have been called assistants or by some other name like paraeducators." Based on responses to these types of questions, the first author decided whether or not to include the individual from the sample. One of the research team members contacted those who were selected to schedule an interview. Six potential study participants were not interviewed because the first author deemed that they were unable to sufficiently recall or communicate their high school experiences. These 6 individuals differed from the 16 who were interviewed only in regard to their memory and communication abilities; they did not differ in any other meaningful ways (e.g., level of involvement in general education, extent of paraprofessional support, employment, living arrangement).

The majority of participants (12) chose to be interviewed in their homes. Two were interviewed in agency offices near their homes and 2 were interviewed at the researcher's office. Fifteen participants requested the presence of a support person during interviews (see Table 1). In these situations where a support

person was present to assist with memory prompting or communication, he or she was reminded that his or her role was not to answer questions for participants or interpret their responses. All interviews were audio-taped with written permission of participants and/or their legal guardians.

A topical interview guide was developed based on existing literature regarding special education paraprofessionals (Giangreco, Edelman, Broer, & Doyle, 2001; Marks et al., 1999; Pickett & Gerlach, 2003). Each interview included four broad categories. First, each participant was oriented to the purpose of the interview and asked a few questions about themselves in an effort to build rapport (e.g., "Where do you live?" "Are you working?" "What are some of your favorite activities?"). The one-page information form collected prior to the interview was used during the interview as a way to orient participants to their educational experiences and jog their memory.

Second, participants were asked to describe their *experiences in school*, particularly those that related to paraprofessional supports (e.g., "What did the teacher assistant/aide do to help you?" "What was it like having an adult assigned specifically to help you in school?" "How did other people, like your classmates, react to you having an adult with you during class?"). Initial questions were based on existing topics and findings from the literature (e.g., roles of paraprofessionals, proximity, teacher roles, peer interactions).

Third, participants were asked for their *perspectives* about the supports they received (e.g., "What did you like or dislike about the supports you received?" "How did you feel about it?" "What did you find most and least helpful?" "Were there any times that you didn't need to have an assistant helping you?").

Fourth, participants were asked what *advice* they would offer to school personnel (e.g., "If you were back in school, how would you like things to be different?" "What would you like to tell your teachers and assistants about what it is like having a paraprofessional help you in class?"). Because the interviews were semistructured, follow-up questions differed based on participant responses. Researchers rephrased questions repeatedly in

order to increase the probability that responses from participants were accurately understood.

After each research team member completed one interview, the research team met to debrief and discuss findings of the initial interviews. As a result, minor adjustments were made to the protocol. For example, issues related to bullying were not part of the initial interview guide because it was not identified as an issue in the paraprofessional literature. Because it emerged in each of the initial interviews, it was probed in subsequent interviews.

DATA ANALYSIS

All interviews were audiotaped, transcribed verbatim, and reviewed by the research team. Transcripts were imported into a qualitative, text-sorting program, HyperQual3 (Padilla, 1999). The first author, who conducted the primary data analysis, established thorough familiarity with the data by (a) conducting half of the interviews, (b) listening to all interview tapes, and (c) reading all transcribed interviews. Data were analyzed inductively using categorical coding (Taylor & Bogdan, 1998). Transcripts were marked by hand using 60 initial codes (e.g., paraprofessional roles, instruction, friends) using terms descriptive of text content. Particularly descriptive passages were highlighted and notes were maintained on emerging themes. The interviews were then re-read and data were re-categorized or combined into 31 codes (e.g., bullying, dependence, frustration with academics, instruction by teacher, proximity, stigma). HyperQ1A3 was used to sort data into 31 code-specific reports. Inductive analysis was applied to the code-specific reports to assist in the identification of themes, which overlapped code categories. The research team reviewed themes to confirm that analyses were consistent with their interview experiences; then they collaboratively conceptualized and wrote the findings.

FINDINGS

The overarching finding of this study revealed the primacy, and sometimes exclusivity, of relationships between these former students and the paraprofessionals assigned to support them. This finding

was evidenced through four interrelated themes pertaining to consumer perspectives of paraprofessionals as (a) mother, (b) friend, (c) protector from bullying, and (d) primary teacher. Each theme provides insights into the relationships between students with disabilities and paraprofessionals, how those relationships affected the students' self-perceptions, as well as their interactions with their teachers and classmates without disabilities.

It is not surprising that within each of these themes, the study participants offered a range of perspectives that were intertwined with their affective recollections about the paraprofessionals. Although some spoke about paraprofessionals positively, (e.g., "They're very nice, they're great" "He was there for me"), others reported feeling mistreated, misunderstood, and not meshing well with the paraprofessional who was assigned to them (e.g., "She didn't really understand who I really *was*" "She was mean" "She used to put me down" "I don't like being yelled at" "Sometimes I thought they weren't patient enough . . . just trying to get it done and over with").

PARAPROFESSIONAL AS MOTHER

I was kind of getting embarrassed because I always had, like a mother right there. People were like looking at me and stuff, and saying, "Why do you always have *this* person with you who *is* twice as old *as* you?"

That is the way one young man described how he felt about some of the paraprofessionals assigned to support him. It was not surprising that several participants described paraprofessionals using the term *mother* because nearly all of the paraprofessionals described by the study participants were women. Although they ranged in age, many were old enough to be the parent of these former students.

Some participants were indifferent to age and gender issues, (e.g., "It's okay, I don't really care"). Others expressed a preference for younger and same gender paraprofessionals, "They [paraprofessionals] should be exactly your age." Explaining why younger paraprofessionals were considered preferable, another former student commented, "They were more fun to interact with and learn more from." A common reason for

preferring paraprofessionals of the same gender was described by a former student, who is male, this way, "I was more comfortable with men because sometimes I just feel more embarrassed if I was with a woman." Participants made links between age, gender, and mother designations that were most closely associated with middle-aged or older women.

The designation of being like a mother carried mixed connotations for the respondents. Some study participants used that language to express their heartfelt admiration for paraprofessionals. As one participant stated, "I liked her a

The overarching finding of this study revealed the primacy, and sometimes exclusivity, of relationships between these former students and the paraprofessionals assigned to support them.

lot because she was like a mother to me for my whole life when I was in school." Other participants attached negative connotations to mothering, identifying it as unwanted and out of place within the context of school, "I felt a little weird. It felt like I was having, like a mother." Participants described how they perceived that the *assignment* of a paraprofessional interfered with, their opportunities to develop friendships, "That's why I didn't have any best friends or a girlfriend in high school because I always had a mother on my back."

PARAPROFESSIONAL AS FRIEND

To fully appreciate the study participants' perceptions of paraprofessionals as *friends* requires an understanding of how they perceived their other social relationships and their self-image. First, many of the study participants expressed a deep sense of isolation from the regular life of the school. As one young woman described, "When I was in school I had, like, my own world; I was in my little world there." A different woman explained, "I didn't feel like I was with a group.... I feel like I was sitting on the outside." One young man stated, "I could never sit in the way back with the other kids. I always had to sit down there with the kids that didn't belong."

A pervasive sentiment expressed by several study participants was, "I felt like I didn't belong."

Second, participants linked feelings of disenfranchisement with recognition of seeing themselves as "different." As one participant explained, "I wasn't like other people. I wasn't with the other kids. I was hurt." Another respondent said, "I want to be normal like the other kids are, but I'm not." The desire to belong and fit in was captured by a study participant who stated, "I would have felt like I belonged if I got along with the kids and I could be like them."

Third, although a small number of participants reported positive peer relationships in school (e.g., "Oh yeah, I had a lot of friends" "I'm a people person, I love people. I really do"), the majority described either a nonexistent, small, or restricted range of friendships limited primarily to paraprofessionals and other students with disabilities. As one young man explained, "I made some friends that would sit next to me [in the cafeteria] who were like my kind of people [students with disabilities]." Another participant referred to himself and his group of friends with disabilities as "nerds." Several participants shared feelings of isolation and rejection (e.g., "[In class] they [peers without disabilities] didn't really want to be my partner" "In the library I would be sitting alone too" "I would sit alone too in the lunch tables").

Participants explained how paraprofessionals, who were often described *as* their "friend" or "best friend," filled the companionship void. "I feel comfortable with [the paraprofessional] ... because she's a friend now, she has been for a long time." One participant explained, "It [having paraprofessional support] is more like a companion kind of thing." Paraprofessionals were perceived as friends because they were the people these former students spent much of their time with in school (e.g., "I spent most of the time with the IAs [instructional assistants] and they took me out of the class"). Some participants identified paraprofessionals *as* their primary social contact during times when students without disabilities typically interacted with one another. "I would sit with them [paraprofessionals] at lunch tables if they were there having lunch."

Although several participants spoke positively about their friendships with paraprofessionals, others recognized that it interfered with peer relationships. As one participant explained, "When they [paraprofessionals] go by you, they cut into your conversation and stuff." Another commented, "When I'm having a conversation with my friends, all of a sudden, there's a break in [by a paraprofessional], and it breaks it off [my conversation with peers]." The desire to establish friendships often was tempered with frustration and sometimes astonishment (e.g., "I want to learn more about friends, like being a friend. But I can hardly do it if I have no friends" "I still can't understand why they just didn't want to have nothing to do with me"). For some, isolation and a restricted range of friendships continued into the postschool years.

PARAPROFESSIONAL AS PROTECTOR FROM BULLYING

Eleven of the 16 study participants reported experiencing various forms of bullying while they were students. The presence of a paraprofessional in close proximity to these students with disabilities served to shield them, temporarily and situation-ally, from mistreatment. Some of these former students endured name-calling (e.g., "They would say words like, 'you're stupid' or 'you're no good.' Some kids called me retarded"). Others reported

Although several participants spoke positively about their friendships with paraprofessionals, others recognized that it interfered with peer relationships.

loss of personal property (e.g., "They would steal my lunch money") or physical abuse such as being pushed, hit, or having objects thrown at them. Two former students, who attended different schools, reported instances of being forced into lockers, and a third reported being forced into a trash can by other students. Bullying reportedly occurred most often when students were not accompanied by a paraprofessional and were outside the classroom (e.g., cafeteria, gym, hall-ways, school bus). The emotional

wounds of these experiences remained fresh for several of the study respondents as evidenced by the fact that the recounting of their stories of bullying brought many of them to tears.

Several study participants indicated their belief that the reasons they were picked on in school related to their perceived disability differences (e.g., "This kid picked on me because I was totally different from other kids. I [have] Down syndrome, mentally retarded"). They also speculated that some bullying stemmed from personal characteristics or circumstances that were not disability related (e.g., "how my teeth were crooked and how I was overweight" "My mom sent me to school after [we] got sprayed by a skunk and all of our clothes were smelly. That was an awful day to live with. She wouldn't let me stay home and get rid of it [the smell]").

At other times, in-class experiences led to mistreatment outside of the classroom. Sometimes stigma associated with paraprofessional support was perceived by respondents as the catalyst for being bullied, "People picked on me because I had an aide. The kids would pick on me because they didn't need anybody and I did." In reference to physical education class, a respondent stated, "I'd get picked on by how I'd played and stuff with the kids [in gym class]." When one student was embarrassed to read aloud in class because he was self-conscious about his limited reading skills, he explained, "When it *was* my turn [to read aloud in class], I refused, so I went out of the room crying, so I got picked on from there."

Former students reported coping with incidents of bullying in a range of ways. Avoidance strategies were common (e.g., "I made up every excuse in the book" [to avoid the gym]). One former student reported, "I'd hide in the janitor's closet." Others reported confronting bullies, "I told them to stop that." Students with disabilities also stood up for each other, especially for peers they perceived as more disabled than themselves. "They'd be mean to my friends who couldn't talk and couldn't communicate" "I used to stick up for them [peers with disabilities]. I used to tell them [students without disabilities], 'They aren't stupid and they're good kids!'" Another student echoed a similar experience, "I helped my friend; he was in

the wheelchair—to stand up for his rights—to speak up for him, because he couldn't speak."

When participants were asked about their perceptions of how adults responded to incidents of bullying, although a couple responded affirmatively, (e.g., "I got the support I needed where I could deal with it"), more commonly they reported their perception that adults were unaware of the extent of bullying experienced by students with disabilities and that they were ineffective in responding to it. "They [adults in school] didn't talk to the kids about how they were treating each other... the teachers would not deal with it and the principal wouldn't really do much about it." In reference to bullying on the school bus, a study participant recalled, "He [the driver] didn't try to control the kids, you can hit kids, or you can throw stuff at them, or just sit there and pick on them." Some of the study participants expressed resignation that bullying was inevitable (e.g., "I mean, you get picked on all your life anyways, so you can't really do much about it").

Study participants who reported feeling supported when incidents of bullying occurred indicated that paraprofessionals served as a protective buffer. When informed of bullying incidents by students with disabilities, it was typically the paraprofessional who advocated on a student's behalf to the principal or teachers. Paraprofessionals also directly confronted students who perpetrated the bullying. As one former student related, "I usually tell and then she [the paraprofessional] goes and talks to the person [the bully]." Students subjected to bullying reported feeling safer when paraprofessionals were nearby, "When I was around her [the paraprofessional] I didn't care.... She was like my protector."

PARAPROFESSIONAL AS PRIMARY TEACHER

The study participants reported that when they were in general education classes, most often, it was the paraprofessional, rather than the classroom teacher, who interacted with them and functioned as their primary teacher. Several of the study participants indicated feeling they were not important or deserving enough to warrant the teacher's time after having had this idea communicated to them by both teachers and paraprofessionals. As one person summarized,

"They're always telling me, 'We got too many kids in the classroom; we can't just deal with you.'" Another shared, "They told me that I couldn't get the teacher to help me because they're busy with other things in the room." A third explained the justification for lack of teacher involvement this way, "They [teachers] can't really spend a lot of time with one person [the student with a disability], because they have a class to teach."

As a result of their limited interactions with teachers, several participants expressed the sentiment, "The classroom teacher, she didn't know me very well." Participants were also very aware of instances when this limited interaction showed up as a lack of communication between teachers and paraprofessionals. "I would be told one thing [by classroom teacher] and [another by] the aide. That happened a lot in high school."

Participants perceived having paraprofessionals function as their primary teacher in the general education classroom in a variety of ways. Some expressed appreciation for the support they received from paraprofessionals and its impact: "She taught me a lot" "They helped me to read and I don't like reading" "He helped me put money in the bank and stuff" "They helped me get a job." Some spoke favorably about the approaches used by the paraprofessionals. "Her strategies worked pretty good." "[The teachers] sometimes made no sense to me, but Barb [the paraprofessional] helped me understand what they're trying to say."

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Some participants acknowledged their need for paraprofessional support during specific parts of their daily schedule, but not in all. "I feel like I don't think I need one in all my other classes."

Others talked about recognizing the benefits of a paraprofessional for behavior support, "I get out of control; but when I had someone around me, it made me stop."

Some former students reported awareness of paraprofessionals fading their support, "He [the paraprofessional] knew when to back off." A small number of respondents experienced systematic fading of paraprofessional supports, "At first I had them [paraprofessionals] in every class and then it went down to only the hard classes." When fading of paraprofessional supports was successfully achieved, respondents spoke about the experience with excitement and pride in their voices, "At the end of the school year, when I was a senior, she like, let me go into my classroom by myself and didn't come with me at all!"

Yet a more common experience was study participants' frustration with the constancy of paraprofessional supports, "I want to be independent...in the halls, in the cafeteria." "Well, sometimes I get tired of being with someone [a paraprofessional] for a long time." These individuals expressed a dislike for the *ways* in which the paraprofessionals offered their support, and they sought to distance themselves from them. "It feels like I'm being babysat from class to class to class." "It [having a paraprofessional assigned to me] embarrasses me." Another individual commented, "I don't want all those [paraprofessionals] with me all, every day."

Several study participants commented that the work in their general education classes was too difficult for them, that they did not understand the teacher's large group instruction, and that it was a challenge to keep up in class. A rare exception was a former student who discussed his success and enjoyment of an elective high school course called "Outdoor Leadership." He attributed his success in this *class* to the personal attributes of the teacher (e.g., "He's a great guy") and to the teaching format, which consisted primarily of activity-based groups.

There were only a few instances in which the study participants described anything that might be considered a modification of curriculum or instruction to meet their individual learning needs. Although such accommodations likely occurred to

some extent and were alluded to by some of the respondents (e.g., "He would read and tell me what to write"), the participants' most common recollections included paraprofessionals intervening while the student was still attempting to complete their work (e.g., "They would tell me words when I'm trying to sound them out, and that bothered me"); or experiencing repetition, (e.g., "They just give you the same stuff all the time; it repeats"). The most common recollection across study participants was that of the paraprofessional actually doing the work for them. "I didn't even have to do anything. She pretty much did it all for me." Another respondent summarized the paraprofessionals' strategy for keeping up with class this way, "I guess I pretty much got the stuff [completed by the paraprofessional] and put my name on it."

STUDY LIMITATIONS

There are study limitations to be considered when reviewing the preceding themes. First, this study included a relatively small number of participants from one state and relied on a single data source (i.e., interviews at a single point in time). These data reflect the perspectives of a relatively homogeneous group of young adults in terms of their language, memory; and intellectual characteristics. The extent to which the findings might overlap the experiences of people with more severe intellectual disabilities, those without formal language systems, or those with other disability labels (e.g., sensory disabilities, autism, multiple disabilities) *is* unknown. We documented that all participants were included in general education classes and received paraprofessional support to varying extents. However, given the retrospective nature of the data collection, we cannot state with certainty (a) the specific number of years or amount of time each participant spent in general education classes, (b) the exact nature of the supports provided by the paraprofessionals, or (c) the school culture or other contextual variables and how they may have influenced participant responses. Despite its limitations, this study includes compelling consumer perspectives regarding the impact and effect of receiving paraprofessional supports, and it offers an initial contribution on a topic of importance where little other data from self-advocates currently exist.

DISCUSSION

Findings of this study present participants' positive, negative, and sometimes ambivalent perspectives about paraprofessionals as mother, friend, protector, and primary teacher. These interrelated themes highlight the primacy and complexity of the relationships that exist between these former students with intellectual disabilities and the paraprofessionals assigned to support them.

Though each of the four interrelated themes could be construed as being positive, especially in situations where they were perceived favorably (e.g., paraprofessional as a friend or protector), we suggest that each of the four themes actually presents cause for concern, regardless of whether they were perceived positively or negatively by the consumer. For example, school is one of the key social environments where children and adolescents establish relationships and an identity separate from their parents. When paraprofessionals function in ways that are perceived as *mothering*, students are denied typical opportunities to develop peer relationships and a sense of self that *is* so important for social-emotional maturation. This finding of the paraprofessional in a mothering role is consistent with the Swedish study that explored paraprofessional issues from the perspective of students with restricted mobility (Skar & Tarnm, 2001).

When classmates notice paraprofessional support as mother-like, in essence they are telling us, *in* the language of Wolf (1978), that the support is not *socially valid*. Being perceived as needing or having a mother figure in school is likely to have exclusively negative implications for how classmates perceive and subsequently treat students with disabilities. It's hard to imagine many students, even those who love their parents, who would want to attend school accompanied by their mother. Mothering supports, though well intended, also can perpetuate stereotypes of people with intellectual disabilities (e.g., eternal child; Wolfensberger, 1975). This stereotyping may sustain low expectations for students with disabilities by sending symbolic messages that what they need in school *is* mothering, rather than effective instruction and appropriate supports.

Although the relational experiences described by the participants (e.g., isolation, disenfranchisement, lack of friendships) could also reasonably have been the experiences of students with intellectual disabilities who did not receive paraprofessional supports, the participants in this study *did* receive those supports. As a result, many established personal relationships with the paraprofessionals assigned to them. Although one could rightly argue that having a friend is good, regardless of their age or station, it *is* our belief that in most cases these former students erroneously labeled paraprofessionals as friends because they were friendly and spent a substantial amount of time together when others (e.g., *classmates*) did not. In actuality the paraprofessionals were paid support providers who, in the vast majority of *cases*, did not sustain friendship relationships after their job supporting the student with a disability ended. Those participants who stated a preference for younger, same-gender paraprofessionals may have been seeking a friend or at least the appearance of one. A cause for concern *is* that having a paid paraprofessional *as* a perceived friend or best friend suggests that these former students did not have a sufficient network of age-appropriate relationships with classmates.

Paraprofessional as a protector from bullying presents a complicated arena. It *is* generally accepted that at least one of the reasons some parents do not advocate for more inclusive educational options for their children with intellectual disabilities is their fear that they will be bullied or otherwise mistreated by uninformed or insensitive peers without disabilities. So when they do access the general education environment, protection from such mistreatment *is* common among the list of rationale for the assignment of a paraprofessional.

Though it seems obvious that shielding any student from mistreatment is rooted in benevolent intentions, there is still cause for concern. First, as the study participants clearly identified, even when they had a paraprofessional assigned to them, they could not be with them every moment, so bullying occurred anyway. Therefore, students with disabilities need opportunities to learn decision making regarding what to do when confronted with bullying situations. Second, we are concerned that utilizing paraprofessionals to

shield students with disabilities from bullying may actually serve to delay attention to the root *issue*; namely, that bullying exists in our schools. As long as paraprofessionals spend part of their time shielding students and confronting bullies directly, teachers and administrators may be unaware of the extent to which their students with disabilities experience bullying or other mistreatment.

Finally, when paraprofessionals functioned as the primary teachers for students with disabilities, the concerns were numerous. First, the very nature of the service delivery is socially stigmatizing for at least some of the students, which can contribute to negative feelings of difference in the classroom. Second, it *is* hard to imagine any student being primed for learning when he or she feels disenfranchised by being separated from the life and routines of the classroom, especially from instructional interactions with the classroom teacher. Third, in some cases *it is* a concern whether students with intellectual disabilities who are placed in general education classes are receiving adequate instruction. For example, in some cases respondents indicated that paraprofessionals provided too much assistance (e.g., doing their work for them in an effort to keep pace with the class), whereas in other cases they stated that they did not receive enough support. This leads us to believe that the types of supports and accommodations provided by paraprofessionals require individualization and the teachers and special educators need to take on a greater role providing instruction to students with disabilities in general education classes.

IMPLICATIONS FOR PRACTICE

Overall, the extent to which consumers perceive paraprofessionals as mother, friend, protector, and primary teacher can serve as a gauge of the health of a school's general and special education service delivery. The more firmly embedded these perceptions, the more likely that schools will find their service delivery in need of adjustment and improvement. Given the range of student and school characteristics, any collection of actions considered by a school or individual student planning team should be individualized. The following list provides some initial implications for practice that can be refined by school personnel based on such individualization.

1. Schools are encouraged to scrutinize their existing paraprofessional service delivery practices to ascertain if they are perceived by consumers as being unnecessarily motherly/parental. The findings may result in the need to consider both structural (e.g., rotating paraprofessionals) and attitudinal changes such as sensitizing paraprofessionals and teachers to the experiences and concerns raised by consumers (e.g., stigmatization). In general, we need to explore alternatives to our current utilization of paraprofessionals and develop more socially valid ways to provide students with needed supports in the general education classroom (e.g., general classroom paraprofessionals; peer supports).
2. Students with disabilities should be given age appropriate input into decision making about their own supports (e.g., paraprofessional supports) and deliberately be taught self-advocacy skills so they can improve their own decision making.
3. Schools may need to actively address the friendship void that currently exists for many students with intellectual disabilities. Although we are not suggesting that schools have the power to create friendships, we feel that they do have the power to minimize barriers to friendships (e.g., physically separating students with and without disabilities, having paraprofessionals eat lunch with students) and have the ability to create fertile ground where friendships can take root and grow. Schools can create opportunities for shared learning experiences where students can display their attributes. These experiences can range from in-class activities, to more formalized peer-sup, port programs, to participation in co-curricular activities. Furthermore, paraprofessionals can be trained to facilitate interactions between students with and without disabilities; (Causton-Theoharis & Malmgren, 2005) though we suggest this role also involve teachers and special educators.
4. School leaders can initiate a school- or districtwide dialogue on teacher involvement with students with disabilities. At least part of this dialogue should address the changing role

of teachers in the education of students with a full range of disabilities that are placed in their *classes*. The outdated, but *still* prevalent, practice of hosting, rather than teaching students with disabilities, limits access to competent instruction and sends devaluing messages to and about students with disabilities (e.g., that some students are more or *less* worthy of teacher time than are others). If students with disabilities are ever to realize the promises of the IDEA, the practice of hosting must be confronted honestly and replaced by genuine individualized education. This will require fundamental changes in how some teachers and special educators approach the inclusion of students with disabilities in their classrooms, as well as the training and supports teachers receive. We do not mean to suggest that such a transition would be simple or easy, but we believe it *is* necessary if we want to improve outcomes for students with disabilities.

5. Perhaps most of all, we need to listen to students with disabilities about their experiences and perspectives. If students with disabilities were getting bullied in a school, it would not be surprising that other students were too. If students with disabilities were having difficulty understanding didactic, large-group lessons and keeping up in class, it would not be surprising that other students were too. Taking action to address the issues raised by the presence of students with disabilities will likely clear the path for nondisabled students who share similar experiences.

Future descriptive research *is* needed to address the limitations of this study. It would be enlightening to know more about a larger number of students with disabilities in different locations, based on more data sources (e.g., direct observation), and across disability categories. For example, in what ways are the experiences of students receiving paraprofessional supports the same or different if their disability is intellectual, orthopedic, sensory, or behavioral? As long as the risks could be minimized, it would be especially helpful to study the impact of paraprofessional supports across school levels (e.g., preschool, elementary, middle school, high school) at times when students are actively receiving those supports, thus creating opportunities for interventions to be enacted that address areas of concern. Research should continue to explore ways for the perspectives of students with limited language skills

(i.e., those who cannot be interviewed or surveyed in traditional ways) to be better understood because these students are likely to be ongoing recipients of paraprofessional supports.

Finally, models need to be explored and studied that actively involve students in contributing to decisions about their own supports, specifically paraprofessional supports and related services. Although a recent article presents a summary of encouraging data regarding student involvement in individualized education program meetings (e.g., goal selection; Test, Mason, Hughes, Konrad, Neale, & Wood, 2004), virtually no data exists in the professional literature in which students with disabilities have a substantial voice in making decisions about their paraprofessional supports.

CONCLUSION

Although a small number of respondents recalled their school experiences primarily with fondness, the vast majority expressed powerful messages of disenfranchisement, embarrassment, loneliness, rejection, fear, and stigmatization. What these students sought was so simple and yet foundational to quality education. They wanted to belong. They wanted to feel that they were worthy of the teacher's time. They wanted to have friends. They wanted to go about their school day without fear or embarrassment. They wanted to learn. In too many cases they did not experience these basics, despite the fact that they attended general education classes and had the support of paraprofessionals.

By raising these concerns we are not suggesting a return to segregated classes, nor are we suggesting that the responsibility for these problems be laid at the feet of the paraprofessionals. Rather, we are suggesting that, as a field, we need to be proactive in addressing our service delivery models and practices that, in essence, continue to communicate messages to students with disabilities that they don't belong. Inclusive schooling means more than merely placing students in general education classes and providing a paraprofes-

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sional for support. Interviewing the 16 young adults in this study reminded us that we must guard against complacency when the trappings of inclusive practice (e.g., general class placement) are in place, because in too many instances an insufficient amount of the substance is present (e.g., curricular and instructional accommodations). Most of all, it reminded us of how important it is to listen to the stories of people with disabilities.

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Increasing Peer Interactions for Students With Severe Disabilities Via Paraprofessional Training

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ABSTRACT: *As students with severe disabilities are included in general education settings, the use of paraprofessionals has expanded to meet these students' needs. Unfortunately paraprofessionals can have the inadvertent effect of intensifying the social isolation of students with disabilities. This study investigated the effectiveness of a training program aimed at teaching four paraprofessionals to facilitate interactions between students with severe disabilities and their peers. A multiple baseline, single-subject design across four paraprofessional/student pairs was utilized. Observational data were collected over the baseline and postintervention phases. Rates of paraprofessional facilitative behavior increased following the intervention. Additionally, rates of student interaction increased immediately and dramatically and were maintained through the maintenance probe.*

The general education classroom has become the place where increasing numbers of students with disabilities are educated. Nationally, there are 5 1/2 million students with special needs, and slightly under half of these students in elementary schools are served in general education settings with their general education peers for more than 79% of the school day (U.S. Department of Education, 2002). Specifically, students with severe disabilities are included in general education settings with growing frequency, and increases are predicted to continue as inclusionary practices become the norm (U.S. Department of Education).

A major impetus for placing students with disabilities in general education classrooms is to allow them to reap the social and academic benefits afforded their peers without disabilities (Cullinan, Sabornie, & Crossland, 1992; Ferguson & Asch, 1989; Johnson & Johnson, 1991; Madden & Slavin, 1983; Wehman, 1990). Educational scholars have suggested that in an inclusive environment, being afforded the opportunity to learn from and care for one another enriches the lives of students (Vandercook, Fleetham, Sinclair, & Tethe, 1998). The general education classroom is considered to be a fertile ground for the development of peer interactions and relationships. These peer interactions have been empirically linked to

The general education classroom is considered to be a fertile ground for the development of peer interactions and relationships.

increased achievement (Johnson, 1981; Yager, Johnson, & Johnson, 1985) and increased self-esteem (Branthwaite, 1985; Kirova, 2001; Nave, 1990). However, for students with severe disabilities, these interactions and relationships may not occur naturally without appropriate support (Evans, Salisbury, Palombaro, Barryman, & Hollowood, 1992).

The most common strategy that school districts use to support students with severe disabilities in inclusive classrooms is to allocate a paraprofessional to work with the individual student (Giangreco, Broer, & Edelman, 1999; Giangreco, Edelman, Broer, & Doyle, 2001; Werts, Wolery, Snyder, & Caldwell, 1996; Wolery, Werts, Caldwell, Snyder, & Liskowski, 1995). In some cases, the involvement of paraprofessionals may be the crucial support that allows a student with intensive academic or behavioral needs to be educated in a general education classroom or school rather than being placed in a more restrictive, segregated setting (Martella, MarchandMartella, Miller, Young, & Macfarlane, 1995).

Although the assignment of a paraprofessional is intended to positively impact the student, several studies have shown that the presence of a paraprofessional can actually have detrimental effects on the peer interactions of a student with a disability (Giangreco, Edelman, Luiselli, & MacFarland, 1997; Marks, Schrader, & Levine, 1999; Shulka, Kennedy, & Cushing, 1999). Specifically, Giangreco et al. (1997) found that paraprofessional proximity had a profoundly negative impact on peer interactions, which affected relationships with classmates. Paraprofessionals were considered to be a physical barrier that caused many of the peers in the study to avoid the student with a disability. Giangreco et al. (1997) also reported that peers sometimes saw students and paraprofessionals as a "package deal."

A second major problem that students with disabilities who are supported by a paraprofessional face is separation from classmates (Gian-

greco et al., 1997). Paraprofessionals were routinely observed removing the students with abilities from their peers or class grouping (e.g., moving the student to a back table to work or to another room without consultation with or resistance from a teacher). Similarly, in a qualitative study by Malmgren and Causton-Theoharis (2003) of a student with emotional disturbance in an inclusive classroom, paraprofessional proximity was found to be the single most important classroom condition that negatively influenced peer interactions.

A growing body of research documents that paraprofessionals are not well prepared to perform their specific job responsibilities (Brown, Farrington, Knight, Ross, & Ziegler, 1999; Giangreco et al., 2001; Wadsworth & Knight, 1996). It has been suggested that paraprofessionals who work with students with complex learning, cognitive, and behavioral issues are the least trained individuals in the school even though they are working with challenging students (Brown et al.). Many paraprofessionals receive no training before starting their employment in the schools (Passaro, Pickett, Latham, & HongBo, 1994), and many paraprofessionals report that they received the majority of their training by simply talking to and shadowing other paraprofessionals in the schools (Giangreco et al., 1997). Unfortunately, the support of an untrained paraprofessional can have negative consequences that actually undermine the original social and academic goals of inclusion.

This study investigates the effectiveness of a training program aimed at teaching four paraprofessionals to facilitate interactions between students with severe disabilities and their peers. The research questions under investigation were as follows: Does training of paraprofessionals to facilitate interactions between students with and without disabilities increase the facilitative behaviors of the paraprofessionals? More important, does training of paraprofessionals increase the quantity of interactions that occur between students with disabilities and their peers? We predicted that the paraprofessional training would positively influence both the behaviors of paraprofessionals and the interactions of students. Based on the findings from other researchers (e.g., Hundert & Hopkins, 1992), we further predicted that gains in facilitative behavior of paraprofes--

sionals would level off at a lower point than gains in peer interaction, given that the goal of facilitative behavior is to encourage independent interactions that blossom into even more interactions as students create meaningful relationships with their peers.

METHOD

SETTING

The study took place in two public elementary schools in a mid-size, Midwestern school district. The school district was chosen because of its size and demonstrated commitment to inclusion. Students with disabilities throughout the district attended their neighborhood schools and were taught primarily in general education classrooms. The participating district employed 473 paraprofessionals during the 2002-2003 academic year. These paraprofessionals worked primarily with students with special needs. The specific elementary schools in which the study took place were solicited based on the enrollment of students with severe disabilities who were served primarily in general education classrooms with the support of a paraprofessional. Two second-grade classrooms were utilized in "School A," and a kindergarten and a fourth-grade classroom were utilized in "School B." In each of the classrooms, a general educator was primarily responsible for the education of all students. The classes ranged in size from 15 to 22 students and the poverty rate, as determined by the percentage of students receiving free or reduced lunch, ranged from 10% to 25%.

PARTICIPANTS

Paraprofessional Participants. Study participants were comprised of four paraprofessional/student pairs. The paraprofessional participants were recruited from among paraprofessionals who were primarily responsible for supporting a student with a severe disability in a general education classroom. Three of the four participating paraprofessionals were female and all were Caucasian, ranging in age from 35 to 53 years. Their years of experience as a paraprofessional ranged from 3.5 to 7 years.

For all four paraprofessionals, the data collection year was the 1st year each had worked with the specific target students. Two of the paraprofessionals had received no postsecondary education, and two had obtained bachelor's degrees. The paraprofessionals and the students in this study are referred to by pseudonyms. Paraprofessionals are referred to as Adele, Barb, Carla, and Don and the student participants in this study are referred to as Alvin, Barry, Charles, and Dustin.

Student Participants. The student participants were four elementary students with severe disabilities who were supported by the paraprofessionals and who received the majority of their instruction (79% or more of the school day) in a general education setting. For the purposes of this study, the definition of a "severe disability" was taken from the Individuals with Disabilities Edu-

Paraprofessionals were considered to be a physical barrier that caused many of the peers in the study to avoid the student with a disability.

cation Act (IDEA) of 1997, meaning that the study population included students with significant learning or cognitive impairments who were also likely to have other accompanying physical or sensory impairments. The existence of concomitant impairments and their impact on communication, mobility, generalization, and/or major life activities was independently verified through perusal of each student participant's individualized education program (IEP). Two of the students in the study were identified by the school district as having a primary disability label of autism; the other two were identified as having a primary disability label of cerebral palsy.

All four of the students in this study were male and enrolled in elementary school. Two of the students were African American and two were Caucasian. Additional information about each of the students' modes of communication and disabilities is provided to give context to the issues that interfere with peer interaction. At the time of the study, Alvin, who was 7 years old and in the second grade, had a vocabulary consisting of a

few words (e.g., yes, no, swing, play). Alvin would, occasionally, get up and walk out of the room. This behavior was attributed to boredom by his teachers. Barry, an 8-year-old second grader, was able to talk; however, he spoke in one to three word utterances and his speech was sometimes difficult to understand. When the study began, he knew over 50 words and concepts in sign language. When Barry was upset, he would sometimes yell or hit. Although he reportedly had never hit a peer, he frequently hit the paraprofessional who supported him. Charles, an 11-year-old fourth grader, spoke using one- or two-word utterances and a few signed words. When he was frustrated, he would breathe loudly or yell. Dustin, a 6-year-old kindergarten student, communicated very well verbally; however, he had some problems with voice volume and eye contact. Additionally, Dustin used a wheelchair for mobility and a specialized supportive chair while doing schoolwork.

INTERVENTION

The intervention consisted of a 4-hour inservice training session held one-on-one with the participating paraprofessionals. The curriculum used in the individual training sessions was entitled "Supporting Students with Disabilities in Inclusive Schools" (Ghere, York-Barr, & Sommers, 2002). Unit 7 of the training program was used, as it relates directly to the facilitation of interactions between students with and without disabilities. The first author conducted the individual training sessions, meeting with each paraprofessional at his or her place of employment for one session after school. Training consisted of four activities with the following objectives: (a) enhancing perspective, (b) establishing the importance of peer interaction, (c) clarifying the paraprofessional's role in facilitating interactions, and (d) increasing the paraprofessional's knowledge base of strategies for facilitating interactions. Each of these activities is described in more detail in the following.

Enhancing Perspective. Paraprofessionals were asked to complete a worksheet consisting of concentric circles (activity adapted from Forest, Pearpoint, & O'Brien, 1996). The paraprofes-

sionals were asked to reflect on their own social relationships, indicating their own family and close friends in the innermost circle. Working outward through the circles, the paraprofessionals were then asked to write the names of good friends, the names of people they enjoyed doing things with occasionally, and last, the names of people who were paid to interact with them. The paraprofessionals were then directed to repeat this activity from the perspective of the target student with whom they worked. After they completed both sets of concentric circles, the paraprofessionals were prompted to compare the two resulting diagrams. The purpose of this activity was to enhance the perspective of the paraprofessional by providing a visual representation of the social relationships of the target student. In all four of the training sessions, the student circles generated by the paraprofessionals were virtually empty in the second and third tiers, but they were very full in the fourth, outermost circle (i.e., the tier indicating people who were paid to be with the student). By contrast, the circles of the paraprofessionals were much more balanced.

Establishing the Importance of Peer Interaction. In the second activity, the trainer recorded the responses while the paraprofessionals were asked "Why are social interactions and relationships important?" The paraprofessionals were then provided with information on this topic from the training manual (e.g., "Friendships meet our human need to belong and feel cared about", "Adults in schools can act as a bridge between students with and without disabilities", "Adults influence where, when, and how students spend time together"). As this information was shared, the paraprofessionals were prompted to add to their own statements about the importance of social interactions and relationships for students.

Clarifying the Paraprofessional's Role in Facilitating Interactions. This activity involved underscoring the paraprofessionals' responsibility to act as a bridge between the target student and his or her peers. The paraprofessionals were asked directly to think of ways they could facilitate inter-

actions between target students and their peers. The trainer recorded their responses for later use.

Increasing the Paraprofessional's Knowledge Base. During this activity, strategies for facilitating interaction were directly taught to the paraprofessionals. These strategies included modeling ways to interact, highlighting similarities between students, identifying strengths of the target student, directly teaching interaction skills, interpreting behaviors, and actively partnering students. Examples of each strategy (supplied in the training manual) were shared with the paraprofessionals. The paraprofessionals were then asked to add at least one of their own ideas to each list of strategy examples and then talked through the possible application of each strategy to their own employment situation. For a sample list of specific facilitative behaviors that were discussed in the training and later observed postintervention, see Figure 1. The first author concluded each training session by verbally summarizing the list of facilitation strategies generated in the third and fourth activity. Subsequent to each training session, the first author gave the typed list of compiled strategies to the participating paraprofessional and the general and special education teachers with whom he or she collaborated. The intervention did not include any additional follow-up feedback or rewards for the paraprofessional participants.

DATA COLLECTION PROCEDURES

The study was designed to evaluate the effectiveness of the intervention on both the facilitative behaviors of the paraprofessionals and the rates of interaction between the participating students and their peers during academic times. Paraprofessional facilitative behaviors were documented through observation using the Peer Interaction and Paraprofessional Facilitative Behavior Observation Instrument (PIOI). Student interaction data were also collected via the PIOI. The PIOI was adapted from the Educational Assessment of Social Interaction (EAST) Engagement Scale (Beckstead & Goetz, 1990), which was created to measure interactions between students with multiple and severe disabilities and their peers. Individual observational probes were 10 min in length. The PIOI was utilized to document the rate of the following occurrences: specific facilitative behaviors of the paraprofessionals, and reciprocal peer interactions

between the participating students and other classmates.

For the purpose of this study, facilitative behaviors were defined as any purposeful behavior intended to cause the target student to interact with another student in the classroom. These behaviors could include (a) increasing physical proximity, (b) highlighting similarities, (c) teaching a skill directly, and (d) modeling and interpreting student behavior (Beckstead & Goetz, 1990). Peer interactions were defined as any two-way communication or any verbal or active nonverbal behavior that causes another person to have a verbal or nonverbal response. This could include (a) questioning, (b) gesturing, (c) nodding, (d) carrying out a direction, (e) physically or verbally re-

The paraprofessionals were asked directly to think of ways they could facilitate interactions between target students and their peers.

sisting an initiation, (f) significantly changing expression or making intentional eye contact, and, (g) responding to or accepting physical support. If a second or further interaction was triggered by the first, those ensuing interactions were counted as separate instances rather than being considered the continuation of a chain of behavior. The PIOI allowed the observer to record each facilitative behavior and peer interaction that occurred during the set interval. Additionally, the instrument provided space for recording details about events or activities that might be pertinent to the data (e.g., student resting head on desk).

Before data collection commenced, the first author trained a second observer, a doctoral student in special education, in the use of the PIOI. Training continued until both observers simultaneously completed three consecutive 10-min observations with 100% agreement.

DESIGN

A multiple-baseline design across four paraprofessional-student pairs was utilized. Observational data were collected during academic times for

FIGURE I

Examples of Facilitative Behaviors Displayed by Paraprofessionals Postintervention

Example Behaviors

- Increase target student's physical proximity to peers.
- Structure target student's "break time" to minimize removal from the classroom.
- Redirect verbal queries about the target student directly to the student.
- Fade assistance to allow more natural peer interaction opportunities.
- Partner target student with peers during academic tasks.
- Arrange for target student to use technology available in the classroom instead of in a separate setting.
- Verbally highlight similarities between target student and peers.
- Create communication cards focused on social exchanges for target student use.
- Integrate target student's home experiences into classroom conversations.
- Teach peers how to communicate with target student (e.g., selected ASL signs).
- Directly teach peers and target students how to interact with one another.
- Utilize interactive technology (e.g., computer with two input devices, tape player with two headsets).
- Utilize rewards that are interactive in nature (e.g., lunch with a friend, puzzle time with a peer).
- Give target student classroom responsibilities that encourage interaction (e.g., handing out papers).

Note. ASL - American Sign Language

each of the pairs over a 9-week period. Specifically, there was a 5-week period of ongoing data collection, a 4-week suspension of data collection, followed by two maintenance probes.

Baseline and Postintervention Phases. In order to establish the natural frequency of the target behaviors of interest, baseline data on paraprofessional facilitative behaviors and peer interactions were collected for a minimum of 3 observational days, or until stable baselines were established. Data were collected during consistent academic times in which the students in the classroom were expected to be learning new information or completing academic tasks and when interactions were appropriate. Observations were conducted three to eight times per week in each of the participating classrooms. Although the time of day that the observations took place varied because of the teachers' schedules, observations typically occurred sometime before lunch during the students' language arts block. After the intervention, data were continually collected until the data trends were stable

for all four pairs. Postintervention data collection procedures were identical to those utilized during baseline.

Maintenance Probe. Four weeks after the last postintervention probe was completed, two maintenance probes were conducted in each classroom. Because the design necessitated that the intervention dates were staggered, this meant that the maintenance probe was conducted 8 weeks after the intervention occurred for the first pair, 7 weeks after the intervention occurred for the second pair, 6 weeks after the intervention occurred for the third pair, and 5 weeks after the intervention for the fourth pair.

DATA DISPLAY AND EVALUATION

Data were charted by plotting the rate of facilitation by the paraprofessional and the rate of student interaction for each observational period. The charted data were then evaluated by visual inspection (Kazdin, 1982). Data in this study were analyzed by examining changes in mean,

level, and trend across the two phases (i.e., baseline and postintervention). Trend lines were created for each phase for each participant using the split-middle technique (White, 1972), and the percentage of nonoverlapping data between phases was calculated.

INTEROBSERVER AGREEMENT

Interobserver agreement checks were conducted during 18% (i.e., 24 out of 132) of the observational probes. These agreement checks were distributed equally across phases and participant pairs. During these checks, two observers independently collected data on each of the variables of interest and compared the data to determine to what extent the two data collectors agreed. A frequency ratio was calculated by comparing the total number of behaviors noted by the two observers. The smaller number was divided by the larger and multiplied by 100 (Kazdin, 1982). Over the 24 simultaneous observations, the rate of interobserver agreement was 100% for both variables of interest.

PROCEDURAL RELIABILITY

In this study, all training sessions with paraprofessionals were audio recorded. An independent rater listened to the taped sessions to test fidelity of treatment implementation by checking that all the steps in the training were completed during each session. Review of the procedural reliability data revealed that 100% of the treatment components were carried out during all four of the independent training sessions.

RESULTS

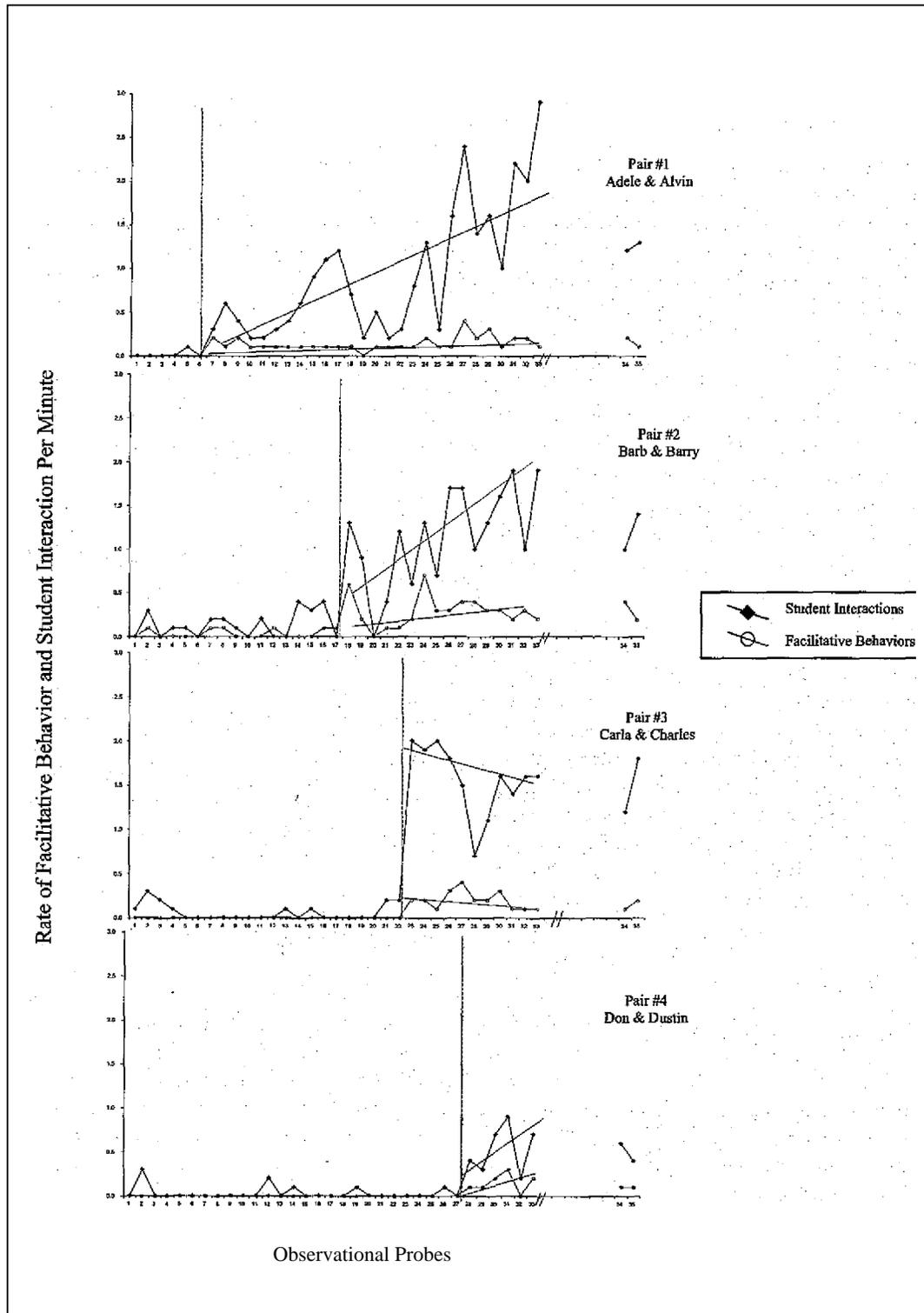
PARAPROFESSIONAL FACILITATIVE BEHAVIOR

Figure 2 presents the rates of facilitative behaviors per min for the four paraprofessional participants. Adele and Alvin are referred to as Pair #1, Barb and Barry as Pair #2, Carla and Charles as Pair #3, and Don

and Dustin as Pair #4. As depicted in Figure 2, the rates of facilitative behaviors of the paraprofessionals increased slightly postintervention. During the baseline phase, the rates of facilitative behaviors per min ranged from 0 to .1 facilitations across all four pairs. After the intervention, the rates of facilitative behaviors per min ranged from 0 to .7 across all four pairs. The change in range indicates that behavior after intervention became more variable. Overall, the paraprofessionals engaged in an average of two times more facilitative behaviors during the postintervention phase than during baseline. Although complete data categorizing the types of facilitative behaviors observed was not collected, anecdotal records indicated that partnering strategies most frequently yielded multiple interactions. During the baseline phase, no facilitative behaviors were observed for Adele. However, during the postintervention phase, a rate of .14 (range 0 to .4) was recorded. Barb displayed an average rate of .04 facilitative behaviors per min during baseline (range 0 to .1) and an average of .29 (range 0 to .7) following the intervention. Carla did not display any facilitative behaviors during the baseline phase, whereas following the intervention, her average rate was .2 (range .1 to .4). Don's facilitative behavior average during baseline was .004 (range 0 to .1), whereas his average was .15 (range 0 to .3) following the intervention.

A maintenance probe administered 4 to 7 weeks after the completion of the postintervention phase reflected that each paraprofessional maintained his or her average level of facilitative behavior. Although the overall increase in facilitative behaviors was not dramatic, each of these maintenance probes demonstrated that the rate of facilitation remained at a level higher than the average baseline rate. Figure 2 graphically depicts the data generated from the maintenance probes. Trend lines depict the tendency for data to indicate systematic increases or decreases over time (Kazdin, 1982). In this study, trends in data changed positively in slope for three of the four paraprofessional participants immediately after

FIGURE 2
Rates of Paraprofessional Facilitative Behaviors and Student-Peer Interaction



the intervention was employed. (See Figure 2 for postintervention phase trend lines; baseline phase trend lines for several participants either overlapped with or were just slightly above the x-axis and are therefore not depicted in the figure.) Examination of the trend lines indicated that each of the paraprofessionals increased their rate of facilitation following the intervention. For Carla, even though the trend line showed a deceleration, the overall rate of facilitation postintervention was much higher than would have been predicted from the baseline trend line. In addition, the maintenance probe for Carla showed a continued upward change.

The percentage of nonoverlapping data between phases was also calculated for each participant. For Adele, a full 96.6% of the postintervention data points were outside the range of baseline data. For Barb and Carla those percentages were 93.4 and 100 respectively. Post-intervention data for Don showed a much lower percentage of nonoverlapping data, (i.e., 37.5%); however, it is important to note that four of the five overlapping postintervention data points comprised an overlap with the single non-zero baseline data point for this paraprofessional. The high percentages of nonoverlapping data (especially for Adele, Barb, and Carla), the immediate and obvious shifts in trend, and the overall increased levels of performance (i.e., paraprofessionals carrying out two times as many facilitative behaviors postintervention), combined to create convincing evidence of change in facilitative behavior as a result of the intervention.

STUDENT INTERACTION

Figure 2 also depicts the rate of interactions per min between each of the target students and their peers. In all cases, the rate of interaction between the target students and their peers increased when the intervention was employed. During the baseline phase, the rate of peer interactions for all four target students was very low, ranging from 0 to .4 interactions per min. During the postintervention phase of the study, the rate of interactions became much more variable, ranging from 0 to 2.9 per min. On average, the students interacted 25 times more frequently than during baseline.

During baseline, the rate of interaction for Alvin averaged .02 (range 0 to .1) per min, whereas during postintervention the rate of interaction averaged .95 (range .2 to 2.9) per min. Barry had an average interaction rate of .14 (range 0 to .4) during baseline, whereas following the intervention phase, his average interaction rate was 1.56 (range 0 to 1.9). Charles's interaction rate increased from an average of .06 (range 0 to .3) during baseline to 1.56 (range .7 to 2.0) during the postintervention phase. During baseline, the number of interactions for Dustin averaged .03 (range 0 to .3) per min; post-intervention, Dustin's peer interactions averaged .53 (range .2 to .9) per min. Furthermore, maintenance probes taken 4 weeks after the last observational probes demonstrated that rates of student interaction remained relatively constant between the postintervention phase and the maintenance probes.

On average, the students interacted 25 times more frequently than during baseline.

Inspection of the trend lines (see Figure 2) for the student participants indicated that trends in the data changed positively in slope for three of the four students. For Charles, the trend line showed a slight deceleration; however, the change in mean for this participant was still noteworthy. The predicted visual continuation of trend lines from the baseline phases for all participating students indicated that low levels of interaction would have been expected if no intervention had been employed. However, in all cases, the intervention caused the anticipated trend of the data to change drastically for the student participants. Even though Charles showed a slight deceleration in his postintervention trend line, his trend line was still well above what would have been expected without intervention, and the percentage of nonoverlapping data postintervention was 100.

Percentage of nonoverlapping data points was also calculated for the other student participants. Like Charles, 100% of the postinterven-

tion data points were outside the range of Alvin's baseline range. For Barry and Dustin, the percentages of nonoverlapping data points were 88.9 and 75.0 respectively.

DISCUSSION

PARAPROFESSIONAL FACILITATIVE BEHAVIORS

Several prior investigators demonstrated that paraprofessionals can learn new skills and successfully implement new strategies after a relatively short training period (Hall, McClannahan & Krantz, 1995; Shulka et al., 1999; Storey, Smith, & Strain, 1993; Wickham, 1993). The current study bolstered these findings and demonstrated that paraprofessionals can learn to facilitate interactions between students with and without disabilities after participating in a 4-hour inservice training.

In this study, all four paraprofessionals increased their rates of facilitative behaviors after the intervention was employed. For example, Adele and Carla did not attempt to engage the target students in any interactive exchanges with other students during any observational period dating the baseline phase. During the postintervention phase, these same two paraprofessionals increased their average rates of facilitation quite substantially. These two paraprofessionals went from displaying no facilitative behaviors to engaging in one to two facilitations per 10 min probe on average. Another paraprofessional, Don, engaged in only one facilitative behavior during his very long baseline phase (i.e., 27 observational probes). After the intervention, he was observed employing more than one facilitative behavior on average during each observational probe.

It is important to note that the remaining paraprofessional, Barb, demonstrated a slightly different pattern of facilitative behavior during the baseline phase than the other three paraprofessionals. Baseline data indicated that she actually did facilitate some peer interactions before the intervention was employed. She was observed facilitating a total of six interactions for Barry during the 17 observational probes that were conducted during baseline. However, like the other paraprofessionals, she also increased her rate of fa-

cilitation from the baseline phase to postintervention—demonstrating that the training had a positive impact on a paraprofessional who demonstrated some level of proficiency, albeit limited, in facilitating interactions prior to the intervention. The change noted for Barb was the equivalent of going from an average of one facilitation every other observation, to almost three facilitations per 10 min observational period after the intervention. It is further important to note that Barb maintained the highest level of facilitation through the maintenance probes at the end of the study.

After the intervention, paraprofessionals engaged in two times as many facilitative behaviors as they did during baseline, resulting in natural and more frequent interactions between the target students and their peers. Additionally, paraprofessionals were then free to assist other students in the classroom while supervising the target student from a distance. Not only was this positive for other students in the classroom who received additional attention, it allowed for more natural peer interaction for the target student without an adult in the immediate vicinity.

STUDENT INTERACTION

Several studies have documented positive benefits to students with severe disabilities placed in inclusive versus self-contained settings, including more interaction with peers without disabilities, IEP objectives related to social relationships, and higher levels of social support from peers (Fryxell

In many cases, one facilitative behavior resulted in numerous interactive exchanges between the target students and other students in the classroom.

& Kennedy, 1995; Hunt, Farron-Davis, Beckstead, Curtis, & Goetz, 1994). Although the student participants in this study were most likely experiencing more interaction with their peers without disabilities than they would have experienced had they been served in segregated settings, they were still socially isolated during baseline. Although each target student had an IEP goal re-

lated to social interaction, the paraprofessionals did very little to facilitate interactions during the baseline phase.

An important finding in this study was that a relatively small change in paraprofessional behavior yielded a substantial increase in student interaction. In many cases, one facilitative behavior resulted in numerous interactive exchanges between the target student and other students in the classroom. For instance, Carla, one of the paraprofessionals, directed Charles to select a friend to read with him—an example of a partnering strategy presented in the paraprofessional training. The verbal directive was coded as one facilitative behavior. After this prompt, Charles selected a friend and sat down with her. Following Charles's selection, 14 interactive exchanges occurred over the next 5 min between Charles and his classmate.

In another example, Barb (a paraprofessional) and Barry were working together on a math assignment. When they finished, Barb noticed that another student in the classroom had also finished. Barb took that opportunity to utilize two facilitative strategies from the training. First, she highlighted the similarities between the two students by pointing out that they had both completed the same math worksheet. Second, she utilized a partnering strategy by suggesting that they check their answers together with a calculator. As they worked together with the calculator, 19 peer interactions took place.

Perhaps the most important result of this study was the dramatic and immediate change in the interaction levels observed between the target students and their peers. For all four student participants, rates of interaction prior to the intervention were extremely low. During the 10-min observational probes conducted during baseline, no target student engaged in more than four interactions. In fact, during baseline, the target students were not typically interacting with anyone at all. Of the 72 baseline probes, 61 (84%) reflected interaction rates of 0 or .1. This means that during 84% of the baseline probes, the target student was either, not interacting at all, or engaged in the equivalent of one interaction over a 10-min period. This is drastically different than the interaction rates of students without disabilities in the same classrooms. These data show that the mere placement of students

with disabilities in general education classrooms does not ensure meaningful levels of interaction between students with and without disabilities. Our findings underscore Evans et al.'s (1992) assessment that someone within the school environment needs to facilitate and support the social inclusion of students within the classroom in order for that inclusion to be successful.

As a result of the paraprofessional training, the interaction rates of the student participants began to approach the interaction rates of their peers. Peer interaction rates postintervention increased an impressive 25-fold. Additionally, though we did not attempt to record the valence of interactions observed, anecdotal notes recorded during observations suggest that only one interaction could have been considered negative. In that particular interaction, which occurred during baseline, a student took a ball from one of the target students, and the target student responded by shouting "No."

The current study also supported Evans et al.'s (1992) findings in that when the paraprofessionals were trained to help students increase their interaction rates with peers, those rates did increase. Although the changes in paraprofessional facilitative behavior were not of the same magnitude as the changes in peer interaction, the changes in facilitative behavior and peer interaction occurred simultaneously and in conjunction with the intervention. The clear timing of the changes between the staggered phases makes us confident that facilitative behaviors learned in training made real changes in the classroom experiences of the participating students, with those students being much more meaningfully included in the classroom with their peers.

SOCIAL VALIDITY

Whereas data concerning the social validity of the intervention were not formally collected, it is important to note that the parent of one student participant did independently contact the first author to let her know that she believed the intervention—and ensuing increases in social interaction and acceptance—had already made the classroom a more positive place for her son. She indicated that following the intervention, her son had twice been invited to play outside of school by classmates—his first such invitations of

the school year. Participating teachers and paraprofessionals also offered unsolicited testimonials about the strides they felt were made by the student participants in terms of the overall quality of their daily experiences in the classroom.

LIMITATIONS

We acknowledge the existence of several limitations to our findings. Although the data we collected did show an increase in paraprofessional facilitative behavior after the intervention, that increase was modest. Our hypothesis is that these modest changes in adult behavior yielded notable changes in levels of student interaction. However, it is also possible that additional changes in paraprofessional behavior occurred that our data collection instrument was not sensitive enough to detect. An instrument focused on more subtle or qualitative changes in behavior or on a wider range of behavior might have yielded different results and should be considered in future studies of facilitative behavior.

The intervention package was multifaceted, addressing both attitudes and perceptions about the importance of interactions, as well as specific skills to facilitate those interactions. Another limitation to our findings is that the observation instrument measured global changes in facilitative behavior only. Additional measures would be needed to capture changes related to all of the intervention components. We cannot assess at this time which parts of the training were most effective. Future research structured as a component analysis would allow the most effective combination of training package elements to be highlighted.

One other limitation to our findings is that data were only collected during academic periods. We know, however, that interaction during nonacademic times is also critical to the academic and social success of students with severe disabilities. Future research should focus on a wider range of settings.

IMPLICATIONS FOR PRACTICE

The most common response to the increasing numbers

of students with high levels of need being served in inclusive settings is to hire paraprofessionals to support those students. The results of the current study show that this arrangement should be implemented with care. We recommend that when a paraprofessional is hired to support a specific student, he or she should be provided training, such as the intervention used in this study, to facilitate peer interactions.

Without proper training, paraprofessionals can act in ways that unwittingly isolate and segregate the students whom they support. This lack of adequate training has serious implications for the lives of students with disabilities, because interaction is essential to establish feelings of belonging (Kunc, 2000; Maslow, 1970); self-esteem (Baumeister & Leary, 1995; Branthwaite, 1985; Nave, 1990); and improved academic success (Johnson, 1981; Marr, 1997; Yager et al., 1985). The absence of interaction between the target students and their peers during the baseline phase of this study was consistent with other research documenting the negative effects of the use of paraprofessionals. Fortunately, these negative effects were diminished after the training was employed.

This study demonstrated that a relatively short and low-cost paraprofessional training program could provide an immediate and potentially long-lasting positive impact on the interaction rates of students with severe disabilities in inclusive classrooms. In the future, this research should be expanded to other populations of students with disabilities who also have difficulties with peer interaction. In addition to our earlier recommendation that the utility of the specific components of the training package be analyzed, we also recommend that the training program be implemented on a wider scale to assess its broader functional utility and cost-effectiveness for professional development purposes. The results of this study and further research in this area can be used to facilitate the appropriate and supported inclusion of students with disabilities in general education classrooms so that their full academic and social potential can be reached.

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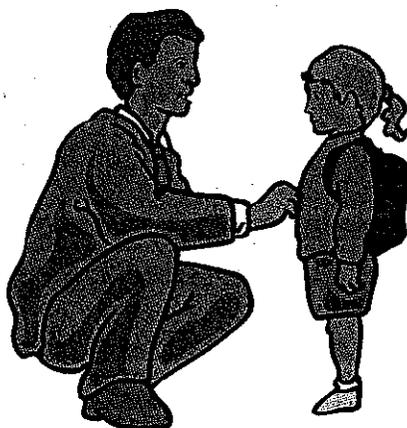
Building Bridges: Strategies to Help Paraprofessionals Promote Peer Interaction

Julie Causton-Theoharis • Kimber Malmgren

"I thought it was my job to sit next to Alex. If I wasn't sitting directly next to him, I was worried that others would think I was not doing my job."—Doug, Paraprofessional

"Before I saw my relationship with the student as the most critical; now I understand that it is my responsibility to help Becca build relationships with other kids, not with me."—Susan, Paraprofessional

"I make decisions about when to remove Bryce from class every day. I think it is my responsibility to determine when he is becoming bothersome to the classroom teacher."—Lynn, Paraprofessional



intensify. In some cases, the relationship that should occur naturally between peers is developed instead between the student and the paraprofessional (see box, "What Does the Literature Say About Paraprofessionals in the Classroom?").

This article summarizes some of the difficulties that students who are supported by paraprofessionals often face, and provides strategies that paraprofessionals can use to minimize the social problems associated with one-on-one support.

Challenges in the Classroom: Effects of Paraprofessional Support on Peer Interaction

Although paraprofessionals can have positive effects on the students whom they support in many areas including academic and physical needs, a growing body of research documents the negative social effects of paraprofessional support. These negative effects generally derive from excessive physical paraprofessional proximity to students, and

frequent removal by paraprofessional of students with disabilities from their peer groups.

Paraprofessional Proximity

One of the biggest problems with the use of paraprofessional support is that unnecessary close paraprofessional proximity can have an unintended negative social effect on students with disabilities (Giangreco et al., 1997). The following are examples of paraprofessional proximity:

- Maintaining physical contact with the student.
- Sitting directly next to the student.
- Allowing the student to sit on the paraprofessional's lap.
- Accompanying the student everywhere in the school setting.

Documented effects of such close proximity include interference with the general educator's sense of responsibility for the student, an overdependence on adults, a reduction in the number of peer interactions, and loss of personal control for the student (Giangreco et al., 1997).

Depending on the nature or severity of a student's disability, and the familiarity of classmates with the student, peers may have varying levels of comfort interacting with the student with disabilities. When this possible discomfort is paired with the presence of an adult to support that student, it is much more likely that peers in the general education classroom will avoid the student with a disability.

The preceding quotations from paraprofessionals show the complicated relationships and challenges that can develop with their students and with other educators. Many of these challenges involve social situations.

Many students with disabilities, some by the nature of their disability, have difficulty with social interaction. They may misunderstand social cues, can be unaware of how to begin a conversation with a peer, or have trouble navigating turn taking in a social interaction. When we pair these students with adult one-on-one support, these difficulties with interaction can actually

Additionally, when peers try to support or help a student with a disability, at times the paraprofessional unintentionally rebuffs the student helper. This is illustrated by the following example, from a fourth-grade classroom: When the students were leaving the lunchroom, Larry, who is a student with autism, was walking out of the lunchroom. A peer began walking with him. When the paraprofessional caught up to the students, she said, "Oh, thanks, I've got him" and took Larry's hand. The peer walked away and joined other students.

Paraprofessionals can also inadvertently interfere with group work. When students are supported by a paraprofessional and the class is doing partner or group work, a common practice is for the paraprofessional to act as the partner of the student with a disability. This practice not only takes away a valuable peer interaction opportunity, but also interferes with the aims of planned group work in which children are supposed to be learning from one another.

In other cases, peer interaction is impeded because the paraprofessional dominates conversation with general education peers. Sometimes this occurs

Paraprofessionals are an essential support that allows a student to be educated within an inclusive classroom environment.

because the general education peers are fond of the paraprofessional and enjoy interacting with him or her. However, that interaction can take the place of natural interaction students with and without disabilities might have.

Another problem demonstrated in research is that the paraprofessional may actually stop social interaction that

What Does the Literature Say About Paraprofessionals in the Classroom?

Movement Toward Inclusion. Students with a variety of disabilities are being placed in general education settings with increasing frequency. Across the nation, there are over five and a half million students with special needs, and over half of them are supported in the general education setting for the majority of the school day (U.S. Department of Education, 2002). One of the reasons for this movement toward inclusive education is that the general education classroom is considered to be a rich environment for students to interact with one another as they learn together and from one another.

Student-to-student interaction is considered a critical component of learning (Cullinan, Sabornie, & Crossland, 1992; Johnson & Johnson, 1991). As general education placements are becoming more common, educators are seeking out innovative and effective ways to support students with disabilities placed in classes alongside their peers without disabilities.

Paraprofessionals as Supports. One of the most common support strategies used in the general education classroom for those students who many school personnel find to be the most challenging (i.e., those with severe disabilities or emotional behavioral disorders) is to assign a paraprofessional to work one-on-one with the student (French & Pickett, 1997; Giangreco, Broer, & Edelman, 1999; Giangreco, Edelman, Broer, & Doyle, 2001). Undoubtedly, paraprofessionals are a valuable asset to the field of education. They are often the essential support that allows a student to be educated within an inclusive environment.

Although the assignment of a paraprofessional is intended to have a positive effect on the student, often the presence of a paraprofessional can also have negative social effects on the student being supported (Brown, Farrington, Knight, Ross, & Ziegler, 1999; Giangreco, Edelman, Luiselli, & MacFarland, 1997; Marks, Schrader, & Levine, 1999).

Fortunately, however, several strategies exist for helping paraprofessionals to facilitate interaction between students with and without disabilities. Use of these strategies can increase the number of peer interactions for students with disabilities instead of hindering them (Causton-Theoharis & Malmgren, 2005).

is occurring naturally by redirecting the student with a disability. An example that we have observed was that while several students in the classroom were casually chatting while doing their work, a student who is supported by a paraprofessional was also chatting with a peer. The paraprofessional approached the girls and told them to "stop talking and get back to work." No other students in the classroom were asked to stop talking (Causton-Theoharis & Malmgren, 2005).

The last problem associated with paraprofessional proximity is that their peers interact with the paraprofessional instead of speaking directly to the student with a disability. For example, in a kindergarten setting where Andrew (a student with cerebral palsy who is highly verbal) is supported by a paraprofessional, another student approached the

paraprofessional and asked, "How is Andrew doing today?"

The paraprofessional responded by talking directly over Andrew's head and replied, "He is doing pretty well." This is problematic because in this situation the paraprofessional is perceived as Andrew's spokesperson, denying Andrew an opportunity to interact with peers.

Physical Removal

A second major challenge that students who are supported by paraprofessionals face is that they are more likely to be physically separated from their peers by the paraprofessional. This commonly plays out in two ways: (a) a paraprofessional may remove a student for logistical or convenience reasons; and (b) the student may be allowed or directed to

participate in an individual activity as a reward for positive behavior.

These practices, coupled with the fact that many adults view independence with adult support as a goal for students with disabilities instead of interdependence with peers, lead to even more social isolation.

Educators and other professionals can use proven strategies to minimize the social problems associated with one-on-one support.

Paraprofessionals have a great deal of responsibility for making decisions about when to remove a student from the classroom (Giangreco, 2003). A common support technique is to remove a student with a disability from the general education environment when the student is perceived by the paraprofessional as being disruptive (Marks et al., 1999). This decision results in students with disabilities being removed from rich social environments.

Even within inclusive settings, our research has demonstrated that paraprofessionals are often de facto responsible for providing or denying opportunities for interaction based on where a student is physically placed (or not placed) in the classroom. For instance, paraprofessionals often work with a student away from other students (e.g., the back table), which removes the student from opportunities to interact with peers.

An even more extreme situation occurs when a paraprofessional needs to stop at the office, or run some other school errand, and he or she takes the student with a disability along, once again removing that student from the natural social environment of the classroom.

Another situation that results in the frequent removal of students from the general education classroom stems from choices about the use of rewards and consequences. Often the consequences that students with challenging behaviors receive for misbehavior involve social isolation (i.e., time out, sitting outside the room, going to the office). On the other hand, when students' behavior is good, they are frequently also rewarded in ways that are also socially isolating (e.g., independent computer time, lunch in the room with the paraprofessional, time in the music room to play the drums without other students present). This is problematic because these activities reduce the amount of time that students have available to interact with peers at school and does nothing to alleviate any difficulties these students already have with peer interaction.

In terms of overall goals for students with disabilities, "independence" is often viewed as highly desirable. When complete independence is not viewed as an immediate obtainable goal, it is then

common for educators to write IEP goals that state, "With adult support the student will _____." Frequently, the paraprofessional is the one giving that support.

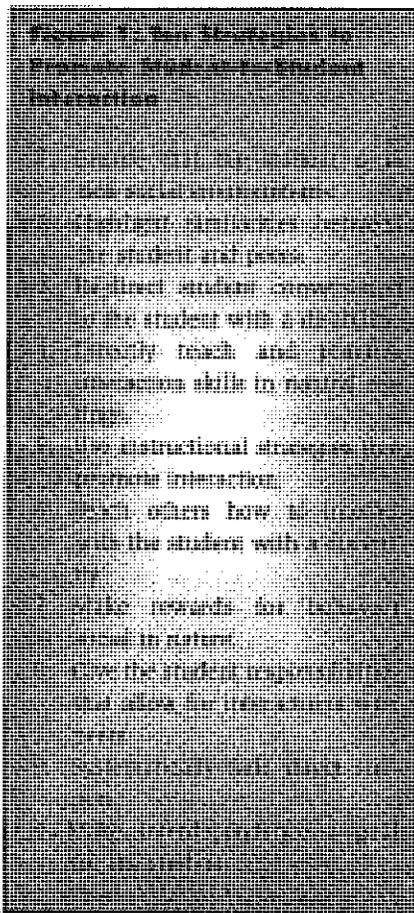
It is important to understand that we all rely on natural supports in the environment in our everyday lives. Using complete independence as a criterion results in students practicing skills in isolation of existing natural supports (i.e., peer support). In turn, students with disabilities end up spending time alone practicing those skills deemed prerequisites to independence.

An example of this involves a student who is learning to dress independently. This student spends 15 minutes each day in the therapy room with a paraprofessional, practicing zipping and unzipping her coat. We suggest that instead of considering independence as the ultimate goal for students, consider interdependence as a substitute. Interdependence in this context refers to situations in which the actions of more than one student are combined and required for success.

Interdependence infers that tasks or goals are accomplished through cooperation; it does not infer that one student is completely dependent on another. A goal incorporating interdependence would potentially use peer supports and might look like: "Before recess, after attempting to zip her coat on her own, Jackie will ask a peer for help."

Potential Solutions: Strategies to Promote Student-to-Student Interaction

Despite the potential problems that exist with paraprofessional support for the social interaction opportunities and abilities of students with disabilities, many strategies also exist to counter these potentially negative consequences. In considering solutions, however, it is important to acknowledge that paraprofessionals do not carry out their duties without supervision. General and special education teachers play an important role in directing and sharing information and feedback with paraprofessionals. Many of the problems described previously, and the following solutions



suggested, may be carried out by a paraprofessional, but are ultimately determined by the team of teachers who are accountable for the education of each student. In the following section we provide several simple strategies that teams of professionals can use to build social bridges between students with disabilities and their peers (see Figure 1).

**Paraprofessionals often
inadvertently isolate
students with disabilities
from their peers.**

**Ensure That the Student Is in Rich
Social Environments**

Students with disabilities should only be removed from the general education environment when it is absolutely necessary. In fact, paraprofessionals should be encouraged to look around the classroom for natural gathering places. They can also help students go to places in the school environment where others are interacting. During work time, students with disabilities should be kept in close proximity to other students. Paraprofessionals should not take students on errands within the school unless they are functional in nature and part of the student's educational goals. Consider the layout of the classroom; think about where the student would be placed if he or she did not have a disability and place her there.

**Highlight Similarities Between the
Student and Peers**

In general education classrooms, students are continually talking and sharing stories about things not necessarily related to the curriculum (i.e., extracurricular activities, hobbies, interests). One strategy for increasing peer interaction is to highlight similarities between the target student and his or her peers (Ghere, York-Barr, & Sommersness,

2002). The best way a paraprofessional can do this is to be conscious of conversations going on around the student. When the paraprofessional notices a similarity, she can point it out.

Some examples of highlighting similarities include: As a conversation about soccer is taking place, the paraprofessional could point out that "Markus's sister also plays soccer." Or, as students are settling down after library time: "Both of you really enjoy stories about dinosaurs. You should look at your dinosaur books together." Another example is after students have had a common experience, ask them "What did you think about the play you saw in Spanish class?"

**Re-direct Conversation to the
Student Being Supported**

When peers engage the paraprofessional in conversation about the student, (e.g., "What will Chloe have for lunch?"), the conversation should be redirected to the student. For example, "I don't know, ask Chloe." When classmates attempt to engage the paraprofessional in conversation, the paraprofessional should try to involve the student with a disability in the conversation. For example, if a student (Diana) is telling the paraprofessional about her trip to the beach, the paraprofessional could ask the student who he or she is supporting: "Have you ever been to a beach before? Tell Diana about it."

**Directly Teach and Practice
Interaction Skills**

The general education classroom is fertile for interaction. However, many students with disabilities need direct instruction in order to interact successfully with peers. Students with disabilities also need to be able to practice newly learned interaction skills. Paraprofessionals can provide explicit instruction in interaction with peers and opportunities to practice in natural settings throughout the day. Some examples of such strategies include the following:

- Teach students to invite other students to play, work, or socialize with

them. For example, asking the student with a disability, "Who do you want to play with at recess? How can you ask them?" For students who are nonverbal, the paraprofessional can provide pictures of students in the classroom and allow the student with a disability to point to a picture of a peer. The peer could then be approached by allowing the student with a disability to use either a communication device or something as simple as an index card with the words "Do you want to play with me?" written on it.

- Draw attention to missed social cues and model acceptable responses for students. For example, "Ella just said hello to you, how should you respond?" Or "Oops, you accidentally bumped into Josh, what can you say?" For students who are nonverbal and use a communication system, make sure that social greetings and age appropriate sayings are programmed into the device.

**Use Instructional Strategies That
Promote Interaction**

Interactions between students may or may not occur during all academic times based on how the instruction is designed. Some strategies for maximizing interaction between students with disabilities and their peers come from pedagogical choices, where educators create opportunities for interaction through their choice of instructional strategies. Some examples of interactive instructional strategies that promote interaction follow.

Use Peer Supports. Using peers to support and enhance classroom learning for all students is a practice that is the cornerstone of many effective and

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popular instructional interventions. The efficacy of various forms of cooperative learning and peer tutoring, for example, has been documented in many research studies (see McMaster & Fuchs, 2002 and Rohrback, Ginsburg-Block, Fantuzo, & Miller, 2003 for examples of reviews of this literature).

Paraprofessionals can capitalize on some of the positive elements of peer support during instruction by enlisting partners for a student with a disability in tasks that lend themselves to that format. During academic times, it may be possible to pair the student with a disability with a peer, even if their ability levels differ. An example of this would be asking one student to check or correct math problems with a calculator while the other student solves math problems manually. In this case it is important to have students switch roles and rotate partners frequently, so that all students in the classroom get an opportunity to be a partner.

Say Something Strategy. (Harmin, 1994). This is a paired reading strategy that can be used when students are expected to read independently. To use this strategy, pair two students together. As they come to an agreed upon spot in the reading, direct them to turn and say something to each other relating to what they have just read. If one of the students is a non-reader, the student who can read will read the passage aloud, and both students can still then be required to "say something."

Turn and Talk. (Harmin, 1994). This strategy forces students to interact about some particular part of the curriculum. For example, before asking stu-

dents to write a story, ask them first to turn and talk to a peer about the story idea.

Teach Others How to Interact With the Student With a Disability

Paraprofessionals can also directly teach peers how to communicate with the student with a disability. For students who use a communication system, the paraprofessional can teach the student's peers how to use and program the electronic communication system.

Another option is to directly teach peers the signs that a student may use. The paraprofessional can also interpret the behavior of the student with a dis-

**Peer supports and pairings
can help all students build
social skills;
paraprofessionals need to
encourage these natural
supports.**

ability. For example, peers can be taught that when the student throws his pencil down, the best response is to ask him if he needs any help.

The paraprofessional can also demonstrate for students how to provide physical support to a student with a disability when appropriate. An example of this would be directly teaching peers how to support a student as they walk up the stairs: "The best way to help Chiquita up the stairs is to stand by her left side and hold her elbow."

The paraprofessional can ask other students to provide support and then show them how and coach them through the process. For example: "Steven cannot open his milk or lunch containers without help. Would you be willing to do that for him? If so, let me show you how I do it."

At the same time, it is important to teach peers when to seek adult support. For example: "If Tonya starts to get too rough, please find an adult."

Sometimes, support provided by a peer may need to be redirected. Sometimes peers will be too helpful, or provide too much support. Additionally, peers may initially talk to the target student in age inappropriate ways (i.e., talking to a high school student as if he or she is a young child).

In both of these cases, it is important to reshape the behavior of the student who is helping. Some examples of how to have these types of conversations follow. For the student who is providing too much support, provide them with corrective feedback: "Julia can hold her book by herself, but if you ask her a question about what you just read that would be helpful."

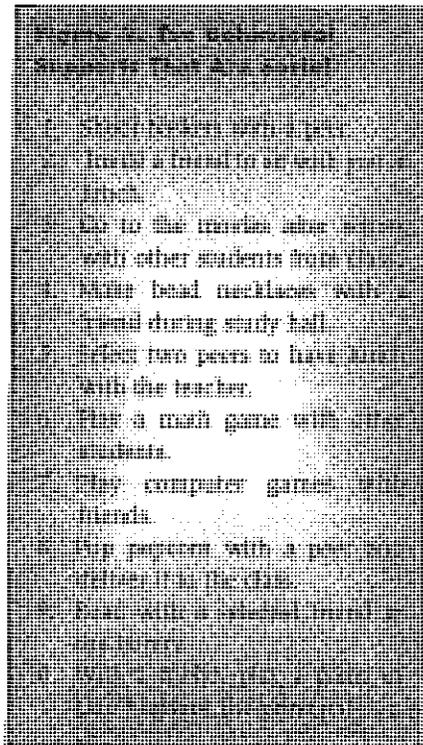
For the student who is engaging the student with a disability in age inappropriate ways, let them know how the student with a disability should be talked to: "Markus is an eighth grader just like you. You can talk to him like you would talk with other eighth graders."

These kinds of interventions are important because they give peers who are providing support some skills to help the target student become more independent while still using peer support.

Make Behavioral Supports Social in Nature

Providing behavioral supports that are social takes some creativity and extra planning. However, providing students with awards that are social in nature can be more fun for all the students involved and have the added benefit of

**Instead of considering
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allowing students to learn and practice social interaction skills naturally. See Figure 2 for "Ten Behavioral Supports That Are Social."

Give the Student Responsibilities That Are Interactive

Giving students responsibilities within the classroom and school environment often addresses functional skills, but also helps build community and a sense of belonging. Paraprofessionals can take a role in assigning these responsibilities and in teaching students how to carry out new responsibilities. Responsibilities that are social in nature increase opportunities for interaction between students in positive ways.

Some ideas for roles and responsibilities that can be carried out in conjunction with a peer are detailed in Figure 3, "Ten Interactive Student Responsibilities."

Systematically Fade One-on-One Support

One of the simplest, yet most effective ways to increase interaction for students is to fade the assistance of the paraprofessional. Fading assistance means actually reducing the type and level of sup-

port given to students in a systematic way. Reducing support not only promotes independence, but also interdependence and interaction with peers.

One question to ask when providing support to a student is "When is it absolutely necessary to sit next to a student and provide one-on-one support?" (e.g., when providing medical assistance or lifting/transferring a student).

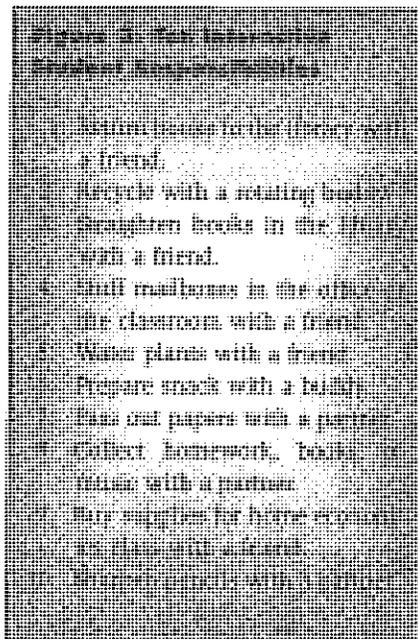
Another question to ask is "Are there times in the student's day when I could be providing the student with less support?" And if so, "When?"

Make Interdependence a Goal

A goal that we often have for students with disabilities is that they are independent (e.g., put on jacket independently, eat independently, etc.). If students are unable to complete a skill independently, we assume that an adult has to provide them with support.

A different way to think about this is to make interdependence a goal for students, explicitly using peer supports. Most of us rely on friends to help us with certain tasks. Giving students the skills to seek peer support is a valid and important, lifelong skill.

An example of a goal that a student might have would be: "With peer support, Tyrone will get his lunch tray and find a seat at the table." These kinds of goals not only encourage, but demand, interaction with peers.



Providing behavioral supports that are social takes some creativity and extra planning.

Final Thoughts

The strategies described in this article can be used to help students with disabilities make and maintain relationships with peers and will hopefully mitigate problems associated with the use of paraprofessionals in general education classrooms.

Teams of educators should use these strategies as tools to help paraprofessionals to build bridges between students with disabilities and their peers, which should then help facilitate the appropriate and supported inclusion of students with disabilities so that their full academic and social potential can be reached.

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Beth's Story: "I don't want an aide!"

When my daughter, Beth, started high school, the school personnel insisted she have a full-time paraprofessional, presumably because she has Down syndrome. It was a battle I wasn't willing to fight, so I agreed to it even though I felt it wasn't needed. Freshman year this arrangement worked out reasonably well. The paraprofessional was a young woman, not much older than Beth. She was skilled at giving her room and knowing when to back off.

During Beth's sophomore year, this paraprofessional was replaced by one who was on her like Velcro! She was always telling Beth what to do, insisting she leave class early, and generally making a spectacle of their interactions. It wasn't long before Beth reacted uncharacteristically. She ran away from the paraprofessional, called her names, even left school and went home.

Though Beth's communication wasn't socially desirable, her intent was clear; but no one seemed to be listening. A month or so into the year, after this second paraprofessional quit, Beth's team met to decide what would happen next. Beth said she "...didn't like being bossed" and "... didn't want an aide." Her request was honored; Beth didn't have an individual paraprofessional for the rest of high school. The problem behaviors disappeared, and with no intermediary between her and the teachers, Beth was more academically connected. It made me feel even more strongly that we need to involve students in determining their own [need for] supports.

Erin's Story: Coming Full Circle

Erin began kindergarten fully included without an aide. By the end of first grade, the school decided to provide part-time paraprofessional support, which continued through grade school. As if the transition to middle school wasn't traumatic enough, the new teachers decided the best way to support Erin was to place her in a class for students with developmental disabilities. Though Erin stayed in the general education class, to appease the teachers, a full-time aide was assigned. Again, this wasn't an IEP team decision based on Erin's needs; it was school politics. After receiving reasonably unobtrusive support in sixth grade, seventh was a different story. The new aide had the attitude that she could teach better than any general or special educator. Ironically, it was this aide's success in alienating the teachers that opened the door to discussions about using less paraprofessional support, in just three classes. That was Erin's best year in middle school; finally we were going in the right direction!

High school arrived, and again the school wanted Erin to have a full-time aide attend general education classes with her. Fortunately, or maybe unfortunately, they hired the "best aide ever!" All of us depended on her, as it turned out, a bit too much. When the "best aide ever" left, as they often do, our [over]dependence on her became all too clear. Finally we began to explore natural and alternative supports that reduced the need for paraprofessional time in several classes. Almost immediately, the teachers commented that Erin was interacting more with her classmates and taking responsibility for her own learning; they were surprised at how much she could do. This year Erin has her best grades ever and loves being a "cool senior"!

Micah's Story: The Power of Peers

Over the years, our son Micah has benefited from the support of several talented paraprofessionals. Yet as he moved through school, we felt ambivalent. We knew Micah needed some extra help in the classroom, but we also knew the more he was surrounded by adults, even well-meaning ones, the harder it would be for peers to connect with him. Adults encircled him and often, though unintentionally, became a wall separating him from his peers—a wall most teenagers would not easily climb over.

We were fortunate to learn about a program where peers without disabilities received credit to serve as mentors to support some of the learning needs of their classmates with disabilities. Under the direction of a special educator, a skilled paraprofessional provided coaching to peer mentors. This coaching allowed the paraprofessional to step back, which resulted in several of Micah's classmates moving closer and interacting with him in new and unexpected ways. During a team meeting, Beth, one of Micah's peers, mentioned she sometimes had a hard time helping him focus on a particular teacher's lectures. She blurted out, "You know what! Sometimes this teacher can be boring—a lot of us have a hard time paying attention in her class. The real difference is that Micah doesn't know how to act as if he's paying attention." Laughter filled the air. Beth blushed and quickly apologized for revealing something negative about this well-liked teacher. The next step for Micah was practicing "paying attention" behaviors, and who better to teach him than genuine inhabitants of the teen world—his peers? Working together strengthened the new bonds they were developing. It also gave the teachers some food for thought.

A real turning point was the day an insensitive substitute teacher mimicked the way Micah said his name in front of the class. Oliver, Micah's peer tutor, leapt out of his seat, rushed to the teacher's desk, and demanded that he stop! This call for respect was much more powerful coming spontaneously from a friend than it would have been coming as feedback from an adult. This incident helped Oliver realize, somewhat to his own surprise, just how much Micah's friendship meant to him. Equally as important was the impact that Oliver's actions had on others. Afterward, several students began approaching Micah in more engaging ways. Oliver nurtured these interactions and demonstrated how to keep a dialogue going with Micah beyond "Hey, what's up?" Oliver was truly a link between Micah and his other classmates.

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