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What Pertinent Skills and Strategies Do Paraeducators Need In Order To Provide Effective and Meaningful Support To A Child With Autism In Public School Classrooms?

Cheryl Phillips
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Capstone Project

November 2007

Cheryl Phillips

St. John Fisher College

ABSTRACT

The rates of children diagnosed with autism in the United States today are steadily increasing. Children with autism are enrolling in the public school system in increasing numbers, and many require support from paraeducators. Engaging a child with autism in learning can be a tremendous challenge that requires specialized skills and strategies. Therefore paraeducators need specialized skills and strategies when working with a student with Autism Spectrum Disorder to insure meaningful and effective support for students. Exactly what skills and strategies do paraeducators need? A review of the literature as well as research is undertaken to examine what autism is, the role of a special education paraprofessional, current skill set standards for special education paraeducators, and identifying the most recent skills and strategies, if any, to engage a child with autism being researched. Controversy concerning the potential over-utilization of paraeducators was identified. The intent is to synthesize the information and data collected to develop a deeper understanding of what exactly a paraeducator needs to know and be able to do when working in the classroom with children with autism.

TABLE OF CONTENTS

Abstract	3
Introduction	5
Review of Literature	7
What is Autism?	7
The Special Educator Paraeducator	9
Skills and Strategies for Students with Autism	12
Training of Special Education Paraeducators	16
Method	18
Results and Discussion	19
Conclusions	27
References	30
Appendix A - CEC Knowledge and Skill Base	34
Appendix B - Survey	38

INTRODUCTION

Paraeducators traditionally serve in a variety of roles and therefore require a range of skills when working in a classroom. Essentially the paraeducator (paraprofessional) is there to assist the educator (professional) in providing an effective and meaningful learning environment for students in the classroom. Sounds simple on paper, but as is often the case, not so simple in actual practice. In fact, there are as many aspects to the role of a paraeducator as there are paraeducators. Paraeducators work in a variety of capacities, e.g. in school libraries, computer labs, resource rooms, general education rooms, special education classrooms, etc., and the jobs of paraprofessionals are continually developing and becoming more specialized. To narrow the focus of this research project, emphasis will be placed upon the special education paraeducator (hereafter referred to as SPED paraprofessional/SPED paraeducator) in the public school system, in particular, special education paraeducators supporting students with Autism Spectrum Disorders (ASDs).

Autism continues to remain an intense focus of investigation globally. The Centers for Disease Control Autism and Developmental Disabilities Monitoring (ADDM) presents statistics indicating 1:150 eight-year-old children in the United States have ASD. Eight-year-old children are being studied because according to the CDC, autism has been largely diagnosed in children by the age of eight years old. However, it is important to note that while it is “clear that more children than ever before are being classified as having Autism Spectrum Disorders (ASDs),” it is not apparent whether this increase is due to the current diagnosis and identification of ASD or actual increase in prevalence (CDC, 2007).

Regardless, at the current time students diagnosed with ASD are entering the public school system in ever increasing numbers, and as such are entitled to free and appropriate public

education and services as defined by IDEA 1997 and IDEA 2004. Appropriate and effective services may include the support of a special education paraeducator. But, what skills and strategies does a SPED paraprofessional working with students with autism need to provide that support? The essence of this research project is to discover those skills and strategies, if any, that would provide meaningful support.

Several relevant issues have been identified in this research process, in fact too many to discuss within the confines of this paper. A few issues, however, continuously bubble to the surface. Two primary issues appear to be concerned with defining autism and defining the job of a SPED paraprofessional. What is autism? Who and what are the parameters of the job of a SPED paraprofessional? Secondary but by no means unimportant issues relate to SPED paraprofessional training and finding research specifically dedicated to paraprofessionals working with students with autism.

This research project will therefore explore the current definitions, symptoms and characteristics of autism, as well as the range of impairment/functionality noted in children with autism. Examination of the special education paraeducator job will follow beginning with qualifications and standards including IDEA 2004, No Child Left Behind (NCLB), recommendations of the Council for Exceptional Children, and a local school district. Subsequently, skills and strategies in the literature are scrutinized, specifically skills and strategies that promote meaningful development in key areas of impairment in autism such as communication and social interaction, behavior, attention, and processing. Training of special education paraeducators will be discussed, on entry into the field, ongoing training, and the ideal versus reality. Finally, controversy concerning the increasing use of SPED paraprofessionals to support education of students with disabilities will be examined.

Analysis of the information collected from research surveys synthesized with information from the literature review completes the project. The intent is to develop deeper understanding of what exactly a paraeducator needs to know and be able to do when working in the classroom with children with autism.

REVIEW OF LITERATURE

WHAT IS AUTISM?

The Centers for Disease Control and Prevention (CDC) defines autism as one developmental disability, specifically named autistic disorder, within a group of disorders categorized as Autism Spectrum Disorders (ASDs). The ASD category in fact includes:

- Autistic disorder.
- Pervasive developmental disorder – not otherwise specified (PDD-NOS which includes atypical autism), and
- Asperger's disorder.

Autism Spectrum Disorders in combination with Rett's syndrome and childhood disintegrative disorder make up the broad diagnosis category of Pervasive Developmental Disorders defined within the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (2002, CDC 2007). Thus, the term "autism" can be vague, although there are similarities between the various ASDs. It is important to clarify therefore what the term "autism" means within the context of this research project. Within the confines of this research project, I will be primarily concerned with autistic spectrum disorders, e.g. autistic disorder, PDD-NOS, and Asperger's Syndrome. Therefore, the term "autism" and "autistic spectrum disorder" will be interchangeable within this paper.

The general similarities among the ASDs include marked impairment in social skills, communicative skills, and markedly restricted/repetitive interests and activities (CDC 2007; DSM-IV-TR 2002; GAO, 2005; NRC 2001). Students with Asperger's Syndrome have difficulties with social interaction, unusual or restricted interests and activities, but not language delays per se. Those children diagnosed with pervasive developmental disorder – not otherwise specified (PDD-NOS) may have two out of the three general categories of impairment (Koegel & LaZebnik, 2004).

There are often associated disabilities and conditions or comorbidities with autism. A 2003 CDC study indicated that 62% of children with ASD had at least one additional disability or epilepsy. Of those 62% with additional disabilities, 68% had mental retardation/intellectual impairment, 8% epilepsy, 5% cerebral palsy, 1% vision impairment and 1% hearing loss. In addition, students with autism may display repetitive and stereotyped behaviors, unusual responses to sensory input, have difficulty with change, abnormal eating habits, gastrointestinal issues, hyperactivity, short attention span, impulsivity, aggressiveness, self-injury, temper tantrums, as well as unusual or no emotional responses. As such, autism is a highly complex, neurologically-based disorder manifested by symptoms and characteristics severe enough to affect daily functioning (CDC 2007, DSM-IV-TR, 2002). The unique manifestation of characteristics of ASD in a person are qualified by the individual's developmental level or mental age (DSM-IV-TR 2002). Accordingly, "No two people with ASDs will have the same symptoms" (CDC 2007).

At this point there is no definitive cause for autism, although there are multiple theories under research and intense interest in its cause. Theories include genetics and environmental factors such as pesticides, infections, hormone imbalance, mercury in vaccines, or certain

specific drugs taken during pregnancy such as thalidomide. The Centers for Disease Control state that autism tends to occur more frequently than expected among those who have Fragile X syndrome, tuberous sclerosis, congenital rubella syndrome, and untreated phenylketonuria (PKU) (CDC 2007; CEC 2007). However, as indicated by the literature, no one specific cause has been identified for Autism Spectrum Disorder. Its cause(s) remains illusive and are under ongoing investigation.

THE SPECIAL EDUCATION PARAEDUCATOR

Within the public educational system, autism is one of 13 categories under the Individual Disabilities Education Act (2004) that entitles a classified student to an individualized educational program. The Individualized Education Plan (IEP) provides the support and services a student with autism requires in order to receive a free and appropriate public education (FAPE). Having the aid of a SPED paraprofessional may be one of the means of support for a student with autism; however, the reverse is not necessarily true. Not all students with autism receive the support of a paraprofessional.

IDEA 1997 was the first piece of educational legislation that specifically referenced paraprofessionals and their role in providing special education service and support. IDEA 2004 used precise language stating that schools may use paraprofessionals “who are appropriately trained and supervised, in accordance with State Law, regulations, or written policy, in meeting the requirements of this part to be used to assist in the provision of special education and related services under this part to children with disabilities” (Sec. 612[a][14][B]). It was at this time that state departments of education asked for clarification of the SPED paraprofessional role since it was the first time paraprofessionals had been specifically addressed within IDEA. The US Department of Education directed that paraprofessional employment was to be governed by the

states and that special education paraeducators were to be “appropriately trained and supervised” (Ashbaker & Morgan, 2006, p. 32).

According to the New York State Department of Education website, a “qualified” paraprofessional (Title I paraprofessional) must have a high school diploma or recognized equivalent **and** 2 years of college **or** associate’s **or** higher degree **or** pass a formal State or local assessment. Duties permitted are:

- providing instructional support;
- 1:1 tutoring (at a time not otherwise receiving instruction from a teacher);
- assisting in classroom management;
- assisting in computer instruction;
- providing instructional support in a library or media center;
- conducting parent involvement activities; or
- acting as a translator. (NYSED, 2007)

A local school district’s description of paraprofessionals is divided into two categories: Knowledge and dispositions. Under the category of “knowledge,” a paraeducator is required to understand:

- The distinction between and the roles of all team members in support of student learning.
- The relationships between schools, families and the larger community and how such partnerships foster student learning.
- The common concerns of parents of students with diverse needs
- How to respond respectfully to a parent, the community or another educator in conflict situations.

- The rights and responsibilities of parents, students, teachers, professionals and schools as they relate to students with learning needs.
- Signs of emotional distress, child abuse, substance abuse and neglect in students and how to follow the procedures to report known or suspected abuse or neglect to the appropriate authorities.
- The expectations for professional conduct, policies, procedures and laws with regard to student and parent rights.

Under the category of “dispositions,” the paraeducator requires the ability to:

- Respect the need for beneficial relationships between families, school and community personnel
- Be concerned about all aspects of student’s well being and is alert to signs of difficulties
- Respect the dignity, rights and privacy of students and families (Schiess, 2005).

The broad job description of a SPED paraprofessional according to federal, state and local school district standards requires academic skills as well as intra and interpersonal skills including knowledge of professional conduct, rights and responsibilities. Additionally, general knowledge and understanding of diversity issues, child abuse and neglect procedures as well as school, family, and community relationships is required. These qualifications may be quite necessary, but again are very broad and general. They do not address working with students with autism in general or with an individual student with autism.

The Council for Exceptional Children, however, does begin to address more specific knowledge and skills for special education paraprofessionals working with children with disabilities and exceptionality. Ten (10) performance-based standards have been developed which are organized into two categories, knowledge and skills (see Appendix A). As is evident

in the standards from the Council for Exceptional Children, the knowledge and skill sets recommended for SPED paraprofessionals appear to be more specific than the common core governmental standards and quite possibly the local educational agency. These standards begin to address children with disabilities and their individualized needs. For example, the knowledge skill set for CEC Standard 5 (Learning Environments/Social Interactions) recommends a paraeducator have understanding of various learning environments and management of behaviors of students with exceptional needs. Skill sets include establishing and maintaining rapport with learners, strategies for managing behavior and assisting with social skill development. Under CEC Standard 6 (Language), the recommendation is for a paraeducator to understand characteristics of appropriate communication with students with disabilities (CEC 2003, 133-134). In other words, the Council for Exceptional Children has taken additional steps to establish more specific knowledge, skills and strategies that paraeducators need to meet the unique learning needs of students with disabilities. However, the standards are not specific to any one disability such as autism. They are more specific than governmental standards, yet are necessarily generalized in order to address the numerous paraeducators working with a wide range of students with disabilities in the United States and in fact, other countries throughout the world. These standards established by the CEC are not specific to a child with Autism Spectrum Disorder.

SKILLS AND STRATEGIES FOR STUDENTS WITH AUTISM

There are several learning approaches for working with children with autism such as:

- Applied Behavioral Analysis (ABA)
 - Lovaas and Discrete Trial Training
 - Incidental Teaching (John Hopkins/Utah State University)

- Pivotal Response Treatment (PRT) - Koegel
- Developmental, Individual Differences, Relationship-Based model (DIR/Floor Time). - Greenspan
- Treatment and Education of Autistic and Related Communication of Handicapped Children/Structured teaching (TEACCH)
 - Structured Teaching
- Picture Exchange Communication Systems (PECS)
- Social stories – Carol Grey
- Sensory integration
- Facilitated communication
- Complementary approaches (music, art, animal therapy)
- Relationship Developmental Intervention (RDI).

The different learning approaches address different aspects of impairment in people with autism, e.g., behavior, sensory function, communication, and social issues (Autism Society, 2007). Effectiveness of several of these specific techniques in addressing the particular deficits in students with autism is indicated in much of the available research. However, “the relationship between particular techniques and long-term outcomes is still not clear” (Brock, Jimerson, & Hansen, 2006, p. 89). Indeed, the complexity and illusive nature of ASD continues to be reiterated and strengthened throughout the literature. Multiple intervention strategies are being researched and trialed, yet at this point no single intervention appears to comprehensively address all the issues an individual child with autism may be experiencing. Priorities have, however, been identified.

There is consensus according to Brock et al (2006) on key characteristics of effective intervention programs:

- Early intervention,
- Intensive instructional programming, and
- Developmentally appropriate educational activity towards identifiable objectives.

The goals should be observable and measurable behaviors and skills that affect a student's participation in home, community and school settings. In other words goals that promote "personal independence and social responsibility" (NRC 2001). As such, Brock et al (2006) emphasize the priorities of interventions he:

- Functional spontaneous communication,
- Social instruction,
- Cognitive development, and
- Play skills (p. 89).

The intent of this particular research project is to focus on the first two priorities of Brock et al (2006), e.g. functional spontaneous communication and social instruction/interaction skills. Unusual, restricted and disruptive behaviors, attending, and processing issues are to be briefly explored due to the constraints of this project. Reasons for proceeding with this focus are twofold: The public educational system is essentially a social environment requiring effective communication and social interaction skills; and the two primary components of Autism Spectrum Disorder are impairment in communication and social interaction. Welsh, Parke, Widaman, and O'Neil (2001) further support this focus by demonstrating a reciprocal relationship between social competence and academic achievement. Their results indicate that, "academic achievement directly influenced social competence from both first to second and

second to third grade, and social competence was reciprocally related to academic achievement from second to third grade (Welsh, et al, 2001, p. 463). Additionally, Carr, Dunlap, Horner & Koegel (2002) suggest that strengthening communicative competence and self-management skills proactively addresses serious behavioral issues. In other words, certain negative behaviors may be less of an issue or prevented from occurring with effective communication and social skills. School is a social institution. Communicative competence and appropriate social skills are required.

Unfortunately however, the availability of current and appropriate research concerning social skill intervention is limited. Bellini, Peters, Benner & Hopf (2007) examine social skill interventions for students with ASDs in their meta-analysis of literature concerning social skills and children with autism. They found that while there is a need to deliver school-based social skills training to students with ASDs, “no studies to date have examined the effectiveness of this type of training for this particular population” (p. 155). The Committee on Educational Interventions for Children with Autism (2001) indicates that even in treatment studies showing strong gains, outcomes are variable with some students making strong gains and some very slow gains. There is considerable evidence that some interventions can reach very specific goals in the short term for very specific people, yet gaps remain concerning larger questions such as relationships between specific techniques, child characteristics, and outcomes (Committee on Educational Interventions for Children With Autism, 2001). Certainly the literature suggests there are interventions and learning approaches comprised of skills and strategies that may be effective for students with autism. However, the limits of the studies and inconsistent results are also revealed. Currently, there are no specific treatment approaches that none have been proven

to be consistently effective for children with autism over time. It is consistently apparent that research is ongoing and in initial stages in terms of ASDs.

As Autism Spectrum Disorder continues to be an enigma, it is not surprising to note the limited research undertaken in terms of paraprofessionals related to specific skills and strategies. In fact, the amount of literature and research the researcher was able to find discussing paraeducators and children with autism in general was sparse. Research and literature directed toward specific communication/social skills and strategies and paraeducators was scant. Currently, the literature concerning SPED paraeducators is directed more toward special education paraeducators working with children with disabilities in general.

TRAINING OF SPECIAL EDUCATION PARAEDUCATORS

In Susan Etscheidt's (2005) analysis of legal issues concerning the use of paraeducators as support for students with disabilities, she states, "The provision of paraprofessional services to students with disabilities has been recognized as an essential component in ensuring a free and appropriate education" (p. 60). Paraeducators are being utilized to support students with disabilities and address the requirements of IDEA and NCLB. She further states that the need for training of paraeducators is revealed in case law and administrative decisions. At the same time, case law indicates adequate training is not being provided to paraeducators (Etscheidt, 2005). A gap exists between recognition of what is effective and appropriate and what actually occurs. There is evidence that SPED paraeducators in the field agree. Paraeducators in inclusive settings indicate they spend the major part of their time providing direct instruction, but lack adequate training (Etscheidt, 2005; Riggs & Mueller, 2001).

As noted throughout, autism is a complex syndrome, and within the current literature there is no consensus on specific effective interventions that produce consistent results over time.

METHOD

The method of collecting data was through anonymous surveys (Appendix B). Each survey consisted of seven (7) items intended to determine the participant's experience working with children with autism, perception/ranking of the challenges, sources of training and information, identification of effective skills, and perception of their own skill and ability level when working with children with autism. Attached to each survey was a letter of introduction and addressed/stamped return envelope to the researcher. The letter of introduction indicated the survey was to be anonymous and return of the survey to the researcher constituted consent to participation. Fifty-four (54) surveys were distributed and 31 surveys were returned to the researcher. (Of note: The initial intent of the researcher was to distribute surveys within two suburban elementary schools, but due time constraints and logistics, this was not possible.)

The population targeted for this research project was both education professionals and education paraprofessionals within one suburban elementary school in upstate New York. Participants were asked to check one category, e.g. paraeducator, special educator, general educator or OT/PT/Speech. The purpose of distributing surveys to professional educators as well as paraprofessionals was to indicate the differences, if any, between educators and paraeducators in terms of experience, skill set, training and perception of the challenges when working with children with autism. In addition, it was the intent of this researcher to understand the differences, if any, between different categories of education professionals. To eliminate potential bias and maintain anonymity, support personnel (OT/PT/Speech) were categorized together. This was due to the fact that the numbers of support personnel within the particular school were limited. Similarly, paraeducators were categorized in one group in order to maintain anonymity and lessen bias. This was undertaken to avoid potential bias if paraprofessionals were

split into two categories - special education paraprofessionals and general education paraprofessionals.

RESULTS AND DISCUSSION

Although the surveys were distributed during the last week of the 2006-2007 school year, there was a high rate of return of surveys (57%). Some of this could be due to interest in the focus of this research project, e.g., paraprofessionals working with children with autism in a public school. However, some of this could be due to acquaintance with the researcher. Of the 31 surveys returned, 13 were paraeducators, 10 general educators, 3 support personnel, and 2 special educators. Two (2) participants indicated they were both general and special educators. For the purposes of this research these 2 participants were placed in the special educator category. This was done to prevent confusion and because the number of participants in the special education category were less than the number of participants in the general education category. Unfortunately, one (1) survey could not be used due to failure on the part of the participant to respond to 2 out of the 7 items as well as the use of inappropriate comments.

Figure 1: AMOUNT OF CONTACT WITH CHILDREN WITH AUTISM

CONTACT	Daily	Frequently	Rarely	Never	Did not indicate
Participants 30	16	4	8	1	1

The percentage of participants who had daily contact with children with autism in the school was 53% and 13% had frequent contact. The percentage indicating rare or no contact were 29% (26% rare/3% no contact). In other words close to 60% of the participants have frequent or daily contact with students with autism.

Figure 2: AMOUNT OF CONTACT WITH CHILDREN WITH AUTISM
Categorized professionals/paraprofessionals

CONTACT	Daily	Frequently	Rarely	Never	Did not indicate
Paraprofessional 13	8		4		1
Special educator 4	1	2	1		
General educator 10	4	2	3	1	
OT/PT/Speech 3	3				

All support staff (100%) and 61% of paraprofessional participants had daily contact with a student with autism; 75% of special educators and 60% of general educators had frequent or daily contact.

Figure 3: SUBJECTIVE EVALUATION OF SKILL SET

SKILL SET	Have the skills	Have <i>some</i> of the skills	Need more skills	Do not feel comfortable with students with ASD	Checked 2 or more categories
Participants 30	10	11	5	1	3

The percentage of participants who evaluate their selves as having the skills or *some* of the skills necessary to support a student with autism is 70% with 17% indicating they need more skills and 3% signifying they do not feel comfortable working with students with autism.

Figure 4: SUBJECTIVE EVALUATION OF SKILL SET
Categorized professionals/paraprofessionals

SKILL SET	Have the skills	Have <i>some</i> of the skills	Need more skills	Do not feel comfortable with students with ASD	Checked 2 or more categories
Paraprofessional 13	4	5	2	1	1
Special educator 4	2	2			
General educator 10	1	4	3		2
OT/PT/Speech 3	3				

When more specifically categorizing participants into professional and semiprofessional groups, 100% of support personnel evaluate themselves as having the skills necessary to support students with autism. One-half (50%) of special educators and less than one-third of paraeducators evaluate themselves as having the skills necessary to support students with autism. Yet, over half of the paraeducators who participated in this study (62%) have daily contact with students with autism. Only 10% of general educators feel confident in their ability to support a student with autism.

Item #3 on the participant survey was a matter of ranking the challenges of working with students with autism according to the participant's experience. The directions indicated to use the numbers 1-5 with #1 being the least difficult and #5 being the most difficult. Interestingly, participants interpreted these directions in two different ways. Out of the 30 participants, 18 ranked the challenges from 1 to 5 as indicated by the directions. However, 12 participants ranked challenges equally in some cases, e.g. communication and attending and focusing might both be ranked as #5. In other words, the participant considered communication and attending/focusing as equally difficult and challenging. Therefore, it was necessary to separate each group of participants according to the method of ranking and evaluate accordingly.

Figure 5: CHALLENGES OF WORKING WITH STUDENTS WITH AUTISM
Group A - 18 Participants

Challenge	5 (Most difficult)	4	3	2	1 (least difficult)
Communication	6	2	3	3	4
Attending/focusing	2	6	3	5	2
Disruptive behavior	9	3	3	1	2
Processing	1	2	5	5	5
Repetitive behavior	1	5	3	4	5

Disruptive behavior and communication were considered the most difficult challenges.

Of the 18 participants, 50% considered disruptive behavior to be the greatest challenge and 33% considered communication to be the most difficult. Attending/focusing, processing and repetitive behavior was considered the least difficult.

Figure 6: CHALLENGES OF WORKING WITH STUDENTS WITH AUTISM
Group B – 12 participants

Challenge	Communication	Attending /focusing	Disruptive behavior	Processing	Repetitive behavior
Paraeducators 5	1,2,2,3,3	2,2,3,3,5	3,3,4,5,5	1,1,2,2,3	1,2,2,3,3
Special Educators 3	1,5,5	1,5	1,4	1,5	1,4
General Educators 3	3,4,5	1,3,3	1,3,4	1,2,2	1,1,2
OT/PT/Speech 1	4	4	3	4	2

- Communication mean: 3
- Attending/focusing: 3
- Disruptive Behavior: 3
- Processing: 2
- Repetitive Behavior: 2

According to the above table, communication, attending/focusing and disruptive behaviors were more difficult challenges, and processing and repetitive behaviors were less difficult. This is consistent with the previous table indicating that communication, attending and focusing, and disruptive behaviors are the greatest challenges to educators.

Figure 7: KNOWLEDGE OF AUTISM SKILLS/STRATEGIES ORIGINATES FROM:

	Working with children with ASD	Employer required training	Relative/friend with autism	Grad Underg. course	Elective workshop/Seminars	Independ. Reading/Research
Participants 30	27	6	4	8	17	23

Overall, 90% of participants received their knowledge of autism skills and strategies through working with children with autism, 77% through independent reading and research, and 57% through elective workshops and seminars. Twenty-seven percent (27%) received knowledge through undergraduate and graduate courses, and only 20% of participant knowledge came from training required by their employer.

Figure 8: KNOWLEDGE OF AUTISM SKILLS/STRATEGIES ORIGINATES FROM:
Categorized professionals/paraprofessionals

	On the job	Required training	Relative/friend with autism	Grad Underg. course	Elective workshop	Independ. Reading/Research
Paraeducators 13	13	2	2	3	5	9
Special Educators 4	3	3	1	3	2	3
General Educator 10	8	0	1	1	7	8
OT/PT/Speech 3	3	1	0	1	3	3

All the paraeducators, special educators, support personnel (100%) and 80% of general educators indicated they received knowledge of autism skills and strategies through working

with children with autism. A majority of participants (100% support personnel, 80% general educators, 75% special educators, and 70% paraeducators) received knowledge through independent reading and research. The majority of general educators (70%), 100% support personnel, and 50% special educators additionally received knowledge through elective workshops and seminars while only 38% of paraeducators indicated attendance at elective workshops and seminars concerning autism. Interestingly while 100% of support personnel have acquired knowledge through required employer training, only 33% of special educators and 15% of paraeducators did. Surprisingly, 0% of general educators received knowledge of autism through employer-required training.

ONGOING TRAINING

All but one participant indicated that ongoing training was necessary. Not all participants indicated specific training desired. The quest for training indicated by participants falls into the following categories:

1. Engagement/interaction; social skills; communication including visual systems (PECS) (10)
2. Any and all areas of new research (7)
3. Behavior (6)
4. Sensory integration strategies
5. Training specific to student
6. Medical interventions.

Communication and interaction skills training is the most requested training with current and updated research based information about autism and behavioral skills and strategies following closely.

SUCCESSFUL STRATEGIES SUGGESTED BY PARTICIPANTS

Suggested strategies by participants to engage the focus and attention of a student with autism include:

1. Instructional components: (18)
 - a. Visual/tactile/musical, sensory integration (8)
 - b. Integrate interests of student into learning (4)
 - c. Allowance of processing time (2)
 - d. Clear, short directions; repetition of directions (2)
 - e. Allowance for breaks (2)
 - f. Necessity of prompting (2)
2. Calm, quiet voice; flexibility of educator (6)
3. Environment: less intense; clear, consistent, predictable routine (4)
4. 1:1 support (3)
5. Token economy (2)

There are a variety of suggested strategies and skills utilized by paraeducators and professionals participating in this study. However, the majority of suggested strategies fell within the category of instructional components. These strategies take into account the varied issues for students with autism and confirm the range of need and differentiation strategies required for students with autism.

LIMITATIONS OF THE STUDY

It should be noted that instructions for items #2, 3 and 4 in the survey could have been clarified to provide more specific results. Additionally, the researcher did not track the specific number of general paraeducators and SPED paraeducators in this study.

CONCLUSION

“Pickett (1986) observed that when paraprofessionals were first introduced into the educational system they were given primarily clerical and housekeeping assignments. However, today paraprofessionals are more likely to hold a variety of responsibilities related to providing direct services to students” (Young & Simpson, 1997, p. 31). Direct service today means increasing utilization of paraeducators to support students with Autism Spectrum Disorders in our classrooms. This, of course, is specifically related to the increased incidence of diagnosis of autism in children currently. The question then arises, what skills and strategies are necessary for paraeducators to support students with autism?

In order to discover those skills and strategies, a literature review and study were undertaken. It is clear from the literature that autism continues to be an enigma, and more general as well as specific information is necessary and desired. Survey results revealed over half of the participants (53%) had daily contact with a student with autism. The results of this study are consistent with a high level of interest in the subject of paraeducators and autism skills and strategies, as there was a high rate of response to the survey (57%). Results are also consistent with a strong desire for more information and necessity for ongoing training as evidenced by the 97% “Yes” response to the question, “In your experience, ongoing training is necessary.”

Whether or not survey participants received training *required* by their employer was consistent with the findings in the literature that indicated a gap between recognition of need for training and actual provision of training. Only 15% of *paraeducators* received training required by their employer, and actually only 20% of *overall* participants received training required by their employer. At the same time, there was clear evidence of desire for information as shown by the majority of paraeducator participants indicating they seek information independently

through reading, research, elective workshops, etc. Additionally, paraeducator participants were asked to evaluate their skill set within the survey. Less than one-third (31%) perceived themselves as having the skills necessary to support students with autism, yet over half (62%) had daily contact with a student with autism. These results are consistent with the literature, which reveals paraeducators giving support without adequate training, yet who are eager for more information and training.

Analysis of the survey results related to the challenges when working with students with autism points toward communication and behavior being the most challenging issues. Certainly the very definition of ASDs includes dysfunction in communication and social interaction. At the same time, the literature indicates that disruptive behavior can also be noted in students with autism. It is unclear, however, when disruptive behavior is a result of the autism spectrum disorders itself, impaired communication and processing skills, or other issues. The literature clearly indicates a relationship between communication and academic competence. Therefore the importance of communication skills is evident. However, interventions to improve communication and social interaction for students with autism are still being developed and researched. To date, there is little to no research identifying specific communication interventions that are consistently effective over the long-term for students with autism.

Thus, providing paraeducators with specific skills and strategies to work with students with autism is difficult and challenging. It is challenging on many levels. Researchers are still examining and analyzing specific skills and strategies in general. All educators including paraeducators are constrained by the limited amount of researched-based interventions available. The research is still in its initial stages and running to keep up with the apparent rapid increase in diagnosis of autism in young children. Whether or not providing paraprofessionals with more

training is even at question. There is controversy in the literature surrounding utilization and/or over-utilization of paraeducators in support of people with disabilities. Paraeducators may currently be in the trenches working with students with autism. Yet questions arise. Should SPED paraprofessionals be the primary support for students with such severe developmental disabilities? If so, then are autism spectrum disorders unique enough to require specially trained paraeducators?

On a final note, it is important to note that much of the research and literature in terms of intervention skills and strategies is directed toward students with ASD in general, yet as stated previously, individual students with autism are unique in their manifestation of characteristics and symptoms, strengths and weaknesses. It is a daily challenge for a child with autism to function effectively in the classroom as the classroom is essentially a social environment. The challenge for educators therefore continues to remain how to address a particular individual's needs regardless who is working with the child.

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APPENDIX A

CEC Knowledge and Skill Base for All Entry-Level Special Education Paraeducators**Standard #1: Foundations**

Knowledge:

PE1K1 Purposes of programs for individuals with exceptional learning needs.

PE1K2 Basic educational terminology regarding students, programs, roles, and instructional activities.

Standard #2: Development and Characteristics of Learners

Knowledge:

PE2K1 Effects an exceptional condition(s) can have on an individual's life.

Standard #3: Individual Learning Differences

Knowledge:

PE3K1 Rights and responsibilities of families and children as they relate to individual learning needs.

PE3K2 Indicators of abuse and neglect.

Skills:

PE3S1 Demonstrate sensitivity to the diversity of individuals and families.

Standard #4: Instructional Strategies

Knowledge:

PE4K1 Basic instructional and remedial strategies and materials.

PE4K2 Basic technologies appropriate to individuals with exceptional learning needs.

Skills:

PE4S1 Use strategies, equipment, materials, and technologies, as directed, to accomplish instructional objectives.

PE4S2 Assist in adapting instructional strategies and materials as directed.

PE4S3 Use strategies as directed to facilitate effective integration into various settings.

PE4S4 Use strategies that promote the learner's independence as directed.

PE4S5 Use strategies as directed to increase the individual's independence and confidence.

Standard #5: Learning Environments and Social Interactions

Knowledge:

PE5K1 Demands of various learning environments.

PE5K2 Rules and procedural safeguards regarding the management of behaviors of individuals with exceptional learning needs.

Skills:

PE5S1 Establish and maintain rapport with learners.

PE5S2 Use universal precautions and assist in maintaining a safe, healthy learning environment.

PE5S3 Use strategies for managing behavior as directed.

PE5S4 Use strategies as directed, in a variety of settings, to assist in the development of social skills.

Standard #6: Language

Knowledge:

PE6K1 Characteristics of appropriate communication with stakeholders.

Standard #7: Instructional Planning

Skills:

PE7S1 Follow written plans, seeking clarification as needed.

PE7S2 Prepare and organize materials to support teaching and learning as directed.

Standard #8: Assessment

Knowledge:

PE8K1 Rationale for assessment.

Skills:

PE8S1 Demonstrate basic collection techniques as directed.

PE8S2 Make and document objective observations as directed.

Standard #9: Professional and Ethical Practice

Knowledge:

PE:9K1 Ethical practices for confidential communication about individuals with exceptional learning needs.

PE:9K2 Personal cultural biases and differences that affect one's ability to work with others.

Skills:

PE9S1 Perform responsibilities as directed in a manner consistent with laws and policies.

PE9S2 Follow instructions of the professional.

PE9S3 Demonstrate problem solving, flexible thinking, conflict management techniques, and analysis of personal strengths and preferences.

PE9S4 Act as a role model for individuals with exceptional learning needs.

PE9S5 Demonstrate commitment to assisting learners in achieving their highest potential.

PE9S6 Demonstrate the ability to separate personal issues from one's responsibilities as a paraeducator.

PE9S7 Maintain a high level of competence and integrity.

PE9S8 Exercise objective and prudent judgment.

PE9S9 Demonstrate proficiency in academic skills, including oral and written communication.

PE9S10 Engage in activities to increase one's own knowledge and skills.

PE9S11 Engage in self-assessment.

PE9S12 Accept and use constructive feedback.

PE9S13 Demonstrate ethical practices as guided by the CEC Code of Ethics and other standards and policies.

Standard #10: Collaboration

Knowledge:

PE10K1 Common concerns of families of individuals with exceptional learning needs.

PE10K2 Roles of stakeholders in planning an individualized program.

Skills:

PE10S1 Assist in collecting and providing objective, accurate information to professionals.

PE10S2 Collaborate with stakeholders as directed.

PE10S3 Foster respectful and beneficial relationships.

PE10S4 Participate as directed in conferences as members of the educational team.

PE10S5 Function in a manner that demonstrates a positive regard for the distinctions between roles and responsibilities of paraeducators and those of professionals.

Source: Council of Exceptional Children, 2003

APPENDIX B

SURVEY QUESTIONS

Check one: ___ Paraeducator ___ Special Educator ___ General Educator ___ OT/PT/Speech

1. I work with children with autism ___ daily ___ frequently ___ rarely ___ never.
2. Please check the sentence(s) that apply:
 - a. I have the skills necessary to support students with autism.
 - b. I have some of the skills necessary to support students with autism.
 - c. I need more skills to work with students with autism.
 - d. I do not feel comfortable working with students with autism.
3. Rank these challenges according to your experience when working with children with autism: (1=least difficult, 5=most difficult):
 - a. Communication difficulties
 - b. Attending and focusing.
 - c. Disruptive behaviors.
 - d. Processing impairment (needs time to process information).
 - e. Repetitive behaviors.
4. In your experience, your knowledge of autism and effective skills and strategies to engage students came from (check all that apply):
 - a. Working with children with autism.
 - b. Training required by my employer.
 - c. A relative or friend with autism.
 - d. Undergraduate or graduate courses.
 - e. Elective workshops and seminars.
 - f. Independent reading and research.
5. In your experience, one strategy that usually works to engage the focus and attention of a student with autism is

6. In your experience, ongoing training is necessary. ___ Yes ___ No.
 If yes, name specific area of training _____.

Please use return envelope to return survey to: Cheryl Phillips, 10 Kurt Road, Pittsford, NY 14534

THANKS!