

Running head: SURVEY OF PARAPROFESSIONALS

SURVEY OF JOB ROLES, TRAINING NEEDS, AND SELF-EFFICACY IN  
PARAPROFESSIONALS

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**Abstract**

This study investigated the experience of paraprofessionals in the school setting by examining their job roles, self-efficacy, and training needs. To investigate these constructs, a 22-question survey was developed and distributed to 20 paraprofessionals across two school districts. The data collected from the survey was analyzed using descriptive, quantitative, and qualitative methods. The research indicated that paraprofessionals regularly undertake a wide variety of job roles, with the most frequently completed roles being Social Skills Facilitation, Providing Behavioral Support, and Academic Instruction. The data showed that, on average, paraprofessionals felt less effective and desired more training in these often-completed roles, relative to their other job roles. Of the paraprofessionals that sought further training, several indicated a desire for training specific to the needs of the students with whom they work. Qualitative data also revealed that paraprofessionals often felt more effective in completing their roles after establishing positive relationships with students. Implications for future research and for school administrators are discussed.

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## **Chapter I: Introduction and Overview**

### **Overview of the State of Paraprofessionals Today**

Today's schools increasingly rely on paraprofessionals as providers of academic instruction for students with disabilities (Giangreco et al., 2002; Miles, 1999). In addition to providing academic instruction, school-based paraprofessionals regularly provide personal care assistance for students (Downing et al., 2000), facilitate social interactions among students (Causton-Theoharis & Malmgren, 2005; Mazurik-Charles & Stefanou, 2010), and provide clerical support for teachers in the classroom (Riggs & Mueller, 2001). Despite providing numerous key services to students with the most complex needs, paraprofessionals often lack the training necessary to competently support these students (Trautman, 2004). Paraprofessionals themselves often report a desire to receive more training related to their everyday job roles (Carter et al., 2009; Riggs, 2001). This calls into question whether paraprofessionals feel they have the ability to complete their job roles effectively. While paraprofessionals' job-related self-efficacy has been largely unstudied, research shows that teachers' self-efficacy moderates their students' levels of achievement (Caprara et al., 2006) as well as resistance to consultation (Wood, 1992). Paraprofessionals' self-efficacy may be similarly important in moderating student outcomes. There is growing recognition that for paraprofessionals to provide successful service delivery, we need to gain a better understanding of their typical job roles, levels of self-efficacy, and training needs. The purpose of this study is to examine paraprofessionals' self-perceptions of these three variables and potential relationships among them.



**Origins of Paraprofessionals in Education**

Several social and political factors over the past 70 years have led to the proliferation of paraprofessionals in schools across the country seen today. According to the National Resource Center for Paraeducators, schools in the United States began regularly employing paraprofessionals starting in the 1950s, when a post-World War II teacher shortage necessitated an increase in school staff (Pickett et al., n.d.).

Paraprofessionals recruited to work in schools during the 1950s were mainly responsible for “clerical, monitoring, and other routine classroom tasks” (Fund for the Advancement of Education, 1961).

In the 1960s and 1970s, Equal Rights and Civil Rights movements began shedding light on the need for “direct services for learners who came from educationally and economically disadvantaged backgrounds” (Pickett et al., n.d.). This led to legislation expanding services for such learners, as part of President Lyndon B. Johnson’s “War on Poverty.” The Elementary and Secondary Education Act of 1965 (which includes Title I) was passed in an effort to direct funds to schools serving low-income families. Additionally, the Head Start (1965) program was initiated in an effort to provide early childhood education services to low-income families. In 1975, the passage of the Education for All Handicapped Children Act (1975) provided the guarantee of a “free and appropriate public education” (FAPE) for all students, regardless of disability status. Paraprofessionals became increasingly necessary to provide the expanding array of services demanded by this legislation.

Legislation requiring provision of services for students with disabilities continued to expand through the 1980s and 1990s. Amendments to the Education of All

Handicapped Children Act in 1986 required the provision of a pre-school education for children with disabilities from ages 3 to 5. Additionally, the Individuals with Disabilities Education Act (IDEA; 1990) became the preeminent federal legislation governing the education of students with disabilities. IDEA maintained the core components of previous federal disabilities education legislation (FAPE, least restrictive environments, Early Intervention Programming) and added several elements. One important requirement added by IDEA was the creation of Individualized Education Plans (IEPs) for students eligible for special education services. During this time, the need for paraprofessionals steadily increased, as the provision of early childhood special education as well as transition services for students with disabilities exiting the school system became more prevalent (French & Pickett, 1997).

Paraprofessionals also became important facilitators of the movement toward including students with disabilities in the general education setting (Hunt & Goetz, 1997). Inclusion necessitated a shift in roles for paraprofessionals, as they now were more often asked to provide behavioral and academic, rather than clerical support (French, 1998). In response to this shift in paraprofessional roles toward service delivery, The No Child Left Behind Act (NCLB; 2001) was the first federal legislation to lay out specific training requirements for paraprofessionals working in schools that receive federal funds. With IDEA and NCLB placing increased emphasis on guaranteeing all students an education in the least restrictive environment, the need for paraprofessionals continued rise through the 2000s (Pickett, 2007).

According to the US Bureau of Labor Statistics there were 1,308,100 Teacher Assistants (school paraprofessionals) in the workforce as of 2016. Paraprofessionals

remain heavily relied upon for provision of school-based services to students with the most complex needs.

### **Roles, Training, and Self-Efficacy of Paraprofessionals**

Paraprofessionals, along with special education teachers, represent the front lines in terms of providing direct services to students with special needs. However, there has been much discussion regarding appropriate utilization of paraprofessionals, accounting for their levels of knowledge and training (Giangreco & Broer, 2005; Giangreco, Suter, & Hurley, 2013). Therefore, it is important to examine what roles paraprofessionals commonly fill in schools.

Current research on roles of paraprofessionals indicates that paraprofessionals are commonly asked to fulfill the roles laid out by NCLB, and more. Most paraprofessionals provide one-on-one and group instructional support, facilitate social relationships among students, and carry out behavior management plans (Carter et al., 2009). In fact, paraprofessionals have reported spending the majority of their work hours implementing behavior plans and providing direct instruction to disabled students (Giangreco & Broer, 2005; Riggs & Mueller, 2001). Additionally, paraprofessionals typically develop lesson plans (Fisher & Pleasants, 2012), provide personal care for students (Downing et al., 2000), complete clerical tasks (Riggs & Mueller, 2001), and facilitate social interactions (Causton-Theoharis & Malmgren, 2005).

The most recent federal legislation involving school paraprofessionals makes clear that paraprofessionals may be asked to fill a wide breadth of potential roles. Paraprofessionals may provide one-on-one support for students, help with classroom management, assist with computer lab activities, assist with parental involvement, assist

in the library or media center, act as a translator, or provide instruction to students according to NCLB (2001). Further research on the roles of paraprofessionals is important, as schools strive to improve the clarity and appropriateness of paraprofessionals' responsibilities.

**Behavior management and interventions.** Paraprofessionals are commonly tasked with carrying out behavioral interventions. In a study by Carter et al. (2009), 79.4% of paraprofessionals surveyed across 77 elementary, middle, and high schools reported “implementing behavior management programs.” Other studies echo this finding – paraprofessionals spend the majority of their work hours implementing behavior plans and providing direct instruction to disabled students (Giangreco & Broer, 2005; Riggs & Mueller, 2001).

There are numerous examples of different types of behavior management interventions commonly implemented by paraprofessionals. For example, paraprofessionals may implement function-based interventions for students with autism (Walker & Snell, 2017). Another study demonstrated the effectiveness of utilizing paraprofessionals to provide behavioral interventions as part of an intensive 12-week school-based program for students with ADHD (Kotkin, 1998).

**Personal care assistance.** Paraprofessionals regularly assume “primary responsibility” for the provision of “personal care” assistance, which includes feeding, bathroom, and dressing support (French, 2001). Over half of all paraprofessionals provide personal care assistance to students on a daily or weekly basis (Carter et al., 2009). According to a study by Giangreco and Broer (2005), personal care assistance accounted for 3.4% of paraprofessionals' time at work. It should be noted that paraprofessionals

providing one-on-one support reported more time spent providing personal care than those providing group support. This can be explained by the fact that students requiring individual support often have multiple disabilities or more severe disabilities than those who receive only group support.

**Academic instruction.** Paraprofessionals often act as primary providers of academic instruction for students with intellectual and developmental disabilities (Giangreco & Broer, 2007). Marks et al. (1999) supports this claim, finding that paraprofessionals “assumed primary responsibility for... day-to-day academic and teaching roles.” Similarly, Patterson (2006) showed that paraprofessionals are often expected to instruct students, devise lessons plans, grade papers, and create test material without the oversight of a licensed teacher. Paraprofessionals may be responsible for up to 75% of instruction for special education students (Giangreco et al., 2011).

Numerous scholars have questioned the suitability of placing paraprofessionals in instructional roles. A longitudinal study examining support staff in schools revealed a negative relationship between the level of support provided by paraprofessionals and student achievement in math, English, and science (Blatchford et al., 2012). Paraprofessionals may reduce student independence by providing them with answers or unintentionally providing incorrect information (Radford et al., 2011; Rubie-Davies et al., 2010).

Giangreco (2009) proposes that paraprofessionals should assist, rather than lead in delivering academic instruction to students. Similarly, Webster et al. (2010) argue that paraprofessionals may best serve as “indirect” providers of academic support, through “development of the ‘soft’ skills – confidence and motivation, dispositions toward

learning, and facilitating collaborating between pupils,” rather than as direct providers of academic instruction. Despite a growing body of commentary and research supporting this sentiment, paraprofessionals often continue to serve as primary academic instructors (Etscheidt, 2005; Giangreco & Broer, 2007).

With appropriate supervision and training, paraprofessionals can be effective in providing academic instruction. For example, a review of seven studies in which paraprofessionals carried out reading interventions demonstrated that paraprofessionals are able to provide effective reading instruction when provided with clear and specific intervention guidelines (Causton-Theoharis et al., 2007). Vadasy et al., (2005) similarly demonstrated that paraprofessionals could effectively implement an oral reading fluency intervention. Another study showed that paraprofessionals were able to effectively provide academic instruction to students with disabilities in the inclusive setting, through the use of a video prompting technique (Knight et al., 2018).

**Facilitation of social communication.** A survey of paraprofessionals conducted by Carter et al. (2009) showed that 87.7% of participating paraprofessionals facilitate social relationships among the students. Research has shown that paraprofessionals can effectively facilitate social interactions among students with disabilities (Causton-Theoharris & Malmgren, 2005) as well as between students with autism and general education students (Feldman & Matos, 2013). Additionally, paraprofessionals may be utilized to prompt students with communication difficulties to use forms of augmentative communication (Bingham et al., 2007).

**Community-based instruction.** Community-based instruction refers to the provision of services within off-campus community settings such as employment sites

and transition schools. Paraprofessionals reported providing daily or weekly community-based instruction more often at the middle school (23.6%) and high school (42.4%) levels relative to the elementary school (8.9%) level (Carter et al., 2009).

**Clerical tasks.** Giangreco and Broer (2005) found that paraprofessionals provide clerical support (making photocopies, taking attendance, etc.) during 4.4% of their typical workdays. Almost four out of five paraprofessionals reported completing clerical work on a daily or weekly basis (Carter et al., 2009).

**Parent communication.** More than half (56.7%) of paraprofessionals working at the elementary school level reported communicating with parents either daily or weekly, compared with 35.6% and 41.5% (Carter et al., 2009).

**Modifying or adapting academic materials.** Nearly 75% of paraprofessionals reported modifying or adapting materials on a daily or weekly basis (Carter et al., 2009). Paraprofessionals in inclusive classrooms often feel as though teachers inappropriately “leave it up to the aide” to make curricular modifications “so the child can participate more in the class.” A paraprofessional interviewed by researchers stated that she often finds herself “taking what is being taught and making it appropriate” for the student (Marks, et al., 1999).

**One-on-one and group support.** Research shows that paraprofessionals have increasingly taken on the role of providing one-on-one support for students with disabilities in inclusive classroom settings (Chopra & French, 2004). These increases have coincided with the movement toward inclusion spurred by FAPE legislation (IDEA, 2004). As of 2009, the vast majority (97%) of surveyed paraprofessionals provided one-on-one support . group (85.3%) instructional support (Carter et al., 2009).

**Factors Affecting Paraprofessional Quality of Service**

Literature surrounding paraprofessionals suggests that several factors may affect the quality of services delivered by paraprofessionals. As schools aim to improve services for students with complex needs, it is important to understand how these factors may affect paraprofessional performance. Such factors may be contextual (quality of training received) or individual (level of self-efficacy).

**Training.** The latest revision of IDEA (2004) provides vague guidelines for paraprofessional training requirements, stating, “Paraprofessionals and assistants who are appropriately trained and supervised” may be “used to assist in the provision of special education and related services.” No Child Left Behind lays out more specific guidelines for schools receiving Title 1 funding. Title 1 schools may only hire paraprofessionals who have earned a high school diploma. Additionally, Title 1 schools may only hire paraprofessionals who have either completed 2 years of “higher education,” an associate’s degree program, or who demonstrate “a rigorous standard of quality” in the instruction of reading, writing, and math (2001).

In addition to federal training requirements, the Council on for Exceptional Children (2015) developed a set of guidelines aimed at clarifying the sparse performance and training standards set forth by IDEA and NCLB. Within these guidelines, the Council on Exceptional Children recommends that paraprofessionals always receive “appropriate training for the tasks they are assigned,” that paraprofessionals are only assigned tasks for which they have been “appropriately prepared,” and that paraprofessionals are provided “ongoing information... regarding their performance and assigned tasks.” Despite the existence of federal and research-based guidelines mandating some level of training



practices, research shows that paraprofessionals are often undertrained to fulfill their job roles (Giangreco et al., 2010). This is a major problem, considering that students with disabilities often present with the most complex needs.

It is evident that paraprofessionals often lack both pre-service and in-service training. Fifty-four percent of paraprofessionals reported that they were not trained at all prior to beginning their full-time roles (Patterson, 2006). Professional development opportunities during the school year are also limited for paraprofessionals. Carter et al. (2009) found that only 25.5% of surveyed paraprofessionals received in-service training. Darling-Hammond (2009) found that those “who work with students with disabilities tend to receive fewer professional development opportunities than those serving students without disabilities.” Some paraprofessionals report never receiving in-service training over a full school year (Brown & Stanton-Chapman, 2017).

Research shows that paraprofessionals are aware of their lack of training. In a qualitative study of paraprofessionals’ roles and responsibilities, all surveyed paraprofessionals indicated a need for further training in behavior management (Patterson, 2006). In a Carter et al. (2009) study, surveyed paraprofessionals reported at least a moderate need for additional training across all 15 of the knowledge standards examined. Riggs (2001) conducted a survey of approximately 200 paraprofessionals, which found that paraprofessionals perceive training needs in the areas of knowledge of specific disabilities, behavior management, communication, learning styles, and inclusive practices.

With the continued documentation of paraprofessionals’ training needs, researchers have begun examining the use and effectiveness of different forms of

training. In a meta-analysis of 30 studies, Walker & Smith (2015) showed that 90% of the training paraprofessionals receive involves workshops, classes, lectures, or didactics.

While these methods of training may be popular, they are not as effective as training methods that provide experiential learning opportunities through techniques such as modeling, demonstration, and provision of feedback. Experiential learning opportunities, in which paraprofessionals actually practice implementing the skill that they are learning has been shown to be more effective than didactic training (Brock & Carter, 2015).

Experiential learning allows for in-the-moment performance feedback, which is an evidence-based practice in training educators (Fallon et al. 2015). The effectiveness of in-the-moment training has been demonstrated through coach-based professional development, a training method in which teachers receive feedback and modeling while teaching their classes (Kraft et al., 2018). A meta-analysis demonstrated that coaching models may be significantly more effective than one-time didactic training (Joyce & Showers, 2002).

It appears that many schools have yet to adopt research-based training delivery methods for paraprofessionals. A review of paraprofessional training programs showed that only 3 of the 26 programs examined met criteria for “high quality” training (Douglas et al, 2019). The criteria for quality of training included adherence IDEA guidelines and inclusion of research-based training techniques, such as experiential learning and feedback. This study demonstrates the need for the development of improved training programs for paraprofessionals. In another study, a survey of teachers demonstrated that although 75% of teachers supervise paraprofessionals, very few received any formal training in supervision (French, 2001).

**Self-Efficacy.** Albert Bandura defined self-efficacy as “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986). Put more succinctly, “self-efficacy is concerned with perceived capability” (Bandura, 2006). High self-efficacy is important because it facilitates increased effort on tasks, persistence in the face of difficulties, and resilience in the face of failure (Bandura, 1997).

Special education paraprofessionals work with some of the most challenging students in schools, such as those with emotional and behavioral disorders. In working with such students, paraprofessionals are likely to encounter difficult circumstances and potentially failures on a regular basis. If, as Bandura suggests, high self-efficacy can increase paraprofessionals’ ability to sustain effort despite difficult circumstances, it may be important for schools to begin fostering self-efficacy. Therefore, it is worth studying the current levels of self-efficacy among paraprofessionals.

Few studies to date have examined self-efficacy in school-based paraprofessionals. This gap in the research is surprising, given the breadth of literature in the area of teacher self-efficacy. Although teachers and paraprofessionals have differing roles in schools, the literature on teacher self-efficacy may serve as a roadmap for the study of paraprofessional self-efficacy. Similar to teacher self-efficacy, paraprofessional self-efficacy may have a profound effect on student outcomes and paraprofessional attitudes, which makes the topic worthy of exploration.

Several scales have been developed to measure teacher self-efficacy (Skaalvik & Skaalvik, 2017). Research shows that teacher self-efficacy is predictive of student achievement and motivation (Ashton & Webb, 1986), positive attitude toward change

(Fuchs et al., 1992), and use of teaching strategies (Allinder, 1994). Additionally, low teacher self-efficacy is associated with burnout (Chwalisz et al., 1992). Woolfolk (1990) encapsulates the importance of teacher self-efficacy aptly, stating, "...teachers with a high sense of efficacy work harder and persist longer even when students are difficult to teach, in part because these teachers believe in themselves and in their students."

### **Purpose of this Study**

Paraprofessionals have a wide range of roles in schools. They provide direct services to students in key areas such as academic instruction, behavior management, personal care, and facilitation of social learning (Carter et al., 2009; Giangreco & Broer, 2005). The importance of their roles necessitates adequate hands-on training, which is not often provided (Brock & Carter 2015; Douglas et al., 2019). Literature examining teacher experiences suggests that self-efficacy moderates persistence in handling challenging students and situations (Bandura, 1997; Woolfolk, 1990). Given that paraprofessionals frequently work with some of the most challenging students, it is important to further study their self-efficacy. By gaining a better understanding of paraprofessionals' self-perceived roles, training, needs, and efficacy, schools stand to gain the ability to better define paraprofessionals' responsibilities, provide more effective training, and boost self-efficacy.

**Research Questions.** This study was designed to gather information on three specific questions:

1. What are paraprofessionals' key job roles?
2. To what degree do paraprofessionals feel effective in carrying out their job roles?

3. Do paraprofessionals feel like they need more training to feel effective in carrying out key job roles?

## Chapter II: Methods

### Participants

Twenty paraprofessionals were invited through an email that contained a link to the survey designed for this study (described below). Inclusion criteria for study participation included having the job title of paraprofessional or paraeducator. Exclusion criteria for study participation included having the job title of teacher or administrator. Paraprofessionals were recruited from 2 school districts.

### Measures

**Paraprofessional Training, Roles, and Self-Efficacy Survey.** Participating paraprofessionals were invited to complete a survey called “Paraprofessional Training, Roles, and Self-Efficacy Survey” (Appendix A). The survey contained 22 items, including multiple choice, rank-order, open-ended, and Likert-type response options. Survey items solicited demographic data as well as information pertinent to respondents’ perceived job roles, self-efficacy in completing those roles, and training needs.

**Demographics.** Participants were asked to provide their gender, race, age, and number of years of experience as a paraprofessional. Additionally, paraprofessionals were asked to identify the special education classification status and grade level of the students with whom they primarily work.

**Job Roles.** Participants were asked to identify the job-related tasks that they complete. Participants marked as many of the seven response options as applied. Participants were then presented with a list including only the job-related tasks that they had marked. They were asked to “Drag and drop to order the tasks from most often completed to least often completed.” Job roles were derived from an examination of

existing paraprofessional job roles literature (Carter et al., 2009; Causton-Theoharis & Malmgren, 2005; Downing, Ryndak & Clark, 2000; Fisher & Pleasants, 2012; Giangreco & Broer, 2005; Giangreco et al., 2002b; Riggs & Mueller, 2001).

There were two open-ended prompts in this section. The first prompted participants to “briefly describe” what the job-related task they most often complete “looks like” to them. The second prompted participants to describe what they do “on an average day at work.” The prompt stated that responses might include information about daily activities, the nature of interaction with students, or daily routines. The purpose of providing participants with the opportunity to describe their daily tasks in an open-ended format was to allow for additional roles or themes to emerge that have not been discussed in existing literature or that were not provided among the seven job-role response options provided. The open-ended response format also elicited further information regarding the nature of the roles paraprofessionals perform and the reasons they find specific job roles to be important.

***Self-Efficacy.*** Participants were presented with items corresponding with each job-related task they indicated performing in the Job Roles section. Each item presented an “I can...” statement related to the job-related tasks. For example, if a participant endorsed providing Personal Care to students, the participant was presented the statement, “I can effectively assist students with their personal care needs.” Participants were prompted to rate their agreement with these statements on a 100-point scale from “Strongly Disagree” to “Strongly Agree.” “I can...” statements were derived from Bandura (2006b), who recommended that items measuring self-efficacy be phrased in this way, in order to measure capability, rather than intention. The 100-point scale was

chosen because it has been shown to be a stronger indicator of future performance than 5-point scales (Pajares et al., 2001). Participants were then prompted to describe (open-ended) why they think they are effective in completing the task with the highest confidence rating and why they think they are ineffective in completing the task with the lowest confidence rating.

***Training Needs.*** Participants were prompted to mark the job-related task(s) for which they had received training. Participants could mark as many of the seven response options as applied. Participants were then prompted to mark the type(s) of training they received by marking as many of the four options as applied. Response options were derived from literature regarding common training methods (Carter et al., 2009). Participants were then presented with a list including only the job-related tasks for which they indicated that they had received training. They were then prompted to “rate the effectiveness of the training” they received for those tasks, by dragging a slider to a number between 1 (not effective at all) to 100 (extremely effective).

Participants were then presented with the original list of seven job-related tasks. They were prompted to order the tasks from “highest need for training” to “lowest need for training.” Participants were then prompted to “briefly describe why” they thought they needed more training in the task they ranked as “highest need for training,” in an open-ended format.

## **Procedure**

**Data Collection.** The survey was delivered via email and administered electronically through Qualtrics survey software. Informed consent was obtained electronically before the surveys began. All survey responses were automatically



anonymized using existing software within Qualtrics. Surveys were prepared and distributed utilizing Tailored-Design Methodology (TDM; Dillman, Smyth, & Christian, 2009). Tailored-Design Methodology is an evidence-based method of maximizing response rates by developing questions that are interesting and easy to answer. Additionally, the present study followed TDM guidelines for providing participants with the researcher's contact information, in an effort to build trust.

The survey was open for response for four weeks following the initial email invitation. A reminder email was sent one week after the initial email was distributed. Participants were informed that they would be entered into a lottery for a \$50 digital Amazon gift card in each email communication. A random drawing took place after the survey is closed. All participants were entered into the drawing. The winner of the drawing received the digital gift card by email one week after the drawing.

### **Data Analysis**

**Qualitative Analysis.** Qualitative data was analyzed using Constant Comparison Analysis (Leech & Onwuegbuzie, 2008). The Constant Comparison Analysis approach began with inductive analysis in which three independent coders analyzed all responses and identified broad themes communicated by the responses. The three coders then collaborated and found agreement on which themes were present within the responses to each qualitative item. After agreement on themes was reached, the coders used a deductive approach, categorizing each response according to the pre-determined themes. Coders were trained to categorize responses that did not fall into any set category as "Other."

Qualitative results were analyzed descriptively, for the purpose of determining which themes of responses were most and least common, and whether any notable pattern existed across responses for each item. Descriptive results of the qualitative analysis also allowed for analysis of convergence between quantitative and qualitative data.

**Quantitative Analysis.** Descriptive analyses were conducted to determine the means and standard deviations of job role rankings, self-efficacy ratings, and training need ratings provided by respondents. Additionally, multi-level modeling (responses nested within paraprofessionals) of paraprofessional ratings of need for further training was analyzed to determine the variation in need for further training attributable to individual paraprofessionals (level 2) and to the job roles they complete (level 1).

Cochran's Q analysis was used to determine whether there were significant differences in terms of paraprofessionals' endorsement frequency of the seven provided job roles.

### Chapter III: Results

#### Introduction

**Demographics.** A total of 20 paraprofessionals participated in the survey. Of the respondents, 60% were White, 15% were Black or African American, 10% were Hispanic or Latino, and 10% reported their ethnicity as Other, and 5% were Asian or Pacific Islander. Regarding gender, 85% of participants were female, and 15% were male.

**Research Questions 1 & 2:** What are paraprofessionals' key job roles and to what degree to paraprofessionals feel effective in carrying out these roles?

**Quantitative results about job roles.** Paraprofessionals were presented with a list of 7 possible job roles. They were asked to indicate all job roles that they regularly perform and to rank them in order from "most often performed" to "least often performed." Cochran's Q test indicated significant differences among the job roles, in terms of frequency of paraprofessionals endorsing each role,  $\chi^2(2) = 16.96$ ,  $p = .009$ .

A total of 65% of respondents endorsed performing 2 or more specific job roles, and 55% perform 3 or more. Table 1 demonstrates that the most common roles endorsed were Social Skills Facilitation ( $n = 13$ ) and Providing Behavioral Support ( $n = 12$ ). Social Skills Facilitation and Providing Behavioral Support had the highest mean rankings in terms of frequency with which the job roles were performed.

Table 1

| <i>Job Roles</i>             |                  |    |                    |
|------------------------------|------------------|----|--------------------|
| Role                         | Descriptive Data |    |                    |
|                              | Frequency        | %  | Ranking<br>M, (SD) |
| Social Skills Facilitation   | 13               | 65 | 2.77, (1.42)       |
| Providing Behavioral Support | 12               | 60 | 2.83, (1.70)       |
| Academic Instruction         | 10               | 50 | 3.50, (1.84)       |
| Checking Academic Work       | 7                | 35 | 3.71, (1.50)       |
| Personal Care                | 6                | 30 | 3.67, (1.86)       |
| Clerical Tasks               | 6                | 30 | 3.67, (2.66)       |
| Modifying Academic Materials | 6                | 30 | 4.00, (1.67)       |

*Note.* Participants ranked roles in order from “most often completed” to “least often completed.” Lower mean rankings represent roles completed (on average) more often than tasks with higher mean rankings.

**Descriptive results about self-efficacy.** Participating paraprofessionals were prompted to rate their confidence (on a scale from 1-100) in their ability to effectively carry out the job roles they perform. Numbers of responses, as well as mean self-efficacy ratings for each job role are represented in Table 2. Participants’ mean self-efficacy ratings for Clerical Tasks (99.17) were the highest of the 7 job roles. Participants’ mean self-efficacy ratings for Providing Behavioral Support (82.00) were the lowest.

Table 2

| <i>Self-Efficacy</i>         |                  |   |
|------------------------------|------------------|---|
| Role                         | Descriptive Data |   |
|                              | Frequency        | Self-Efficacy Rating (1-100)<br>M, (SD) |
| Social Skills Facilitation   | 12               | 87.33, (9.57)                           |
| Providing Behavioral Support | 10               | 82.00, (14.70)                          |
| Academic Instruction         | 9                | 85.89, (14.36)                          |
| Checking Academic Work       | 7                | 91.14, (12.99)                          |
| Clerical Tasks               | 6                | 99.17, (2.04)                           |
| Personal Care                | 5                | 97.80, (4.91)                           |
| Modifying Academic Materials | 5                | 90.20, (7.09)                           |

**Qualitative responses about job roles.** Respondents were prompted to, “Briefly describe the job tasks expected of you on an average day at work. You may describe activities you take part in, the nature of your interactions with students, or any daily routines that are an important part of your day.” A total of 11 themes were observed among paraprofessional responses describing their “average day at work” (Table 3). Each theme was representative of a different job role or task, as identified by consensus of 3 independent coders. A total of 39 codes were applied across the 14 responses to this item, averaging 2.79 codes per response. Coders identified at least 2 themes in 86% of paraprofessional responses, and coders identified at least 3 themes in 50% of responses. Coders identified 5 or more themes in 43% of responses. All responses contained at least one theme. Complete descriptive data of coded job roles are described in Table 3.

The following is an example description of a paraprofessional’s average day, which reflects 6 coded themes listed in the order in which they appear in the response. The themes include Personal Care, Assisting Students with Academic Work, Academic Instruction, Behavioral Intervention, Assisting Teacher, and Checking/Grading Work:

Every day I welcome the kids into the classroom and check that they brought lunch, order their lunches if needed. I check if they did their homework and if they did not, I take them aside and complete it with them. I walk with them to every class and assist them with their work. During academic classes I take a small group to another room and teach them the lesson for that period. If there is a problem behaviorally I remove the child from the room and take them on a small break if needed. During each class if I see a student getting overwhelmed or frustrated I might take them aside to help them with their work, or take them on a

break. Use sensory toys if needed. At the end of the day I put their homework in their folders and help them pack up their backpacks and make sure they have everything. During the day I also make copies for the teacher, clean the room, help organize completed work and grade if needed.

The most common theme identified was Assisting Students with Academic Work. This code was applied for responses indicating that the paraprofessional was helping a student with (not teaching how to do) classwork. Some responses coded within this theme include, “Supporting him on academic work when he finds it difficult,” and, “assisting with one to one student academic sessions.” Table 3 contains complete descriptive results regarding the qualitative data collected for daily job roles of paraprofessionals.

Table 3

*Daily Job Roles of Paraprofessionals*

| Item  | Theme                                       | Frequency | %  |
|---|---|-----------|----|
| In your own words, please briefly describe the job tasks expected of you on an average day at work. You may describe activities you take part in, the nature of your interactions with students, or any daily routines that are an important part of your day. (n = 14) |   |           |    |
|   | Assisting Students with Academic Work       | 7         | 50 |
|   | Supervising Student Activity (Non-Academic) | 6         | 43 |
|   | Behavioral Intervention                     | 5         | 36 |
|   | Personal Care                               | 5         | 36 |
|   | Academic Instruction                        | 3         | 21 |
|   | Assisting Teacher with Clerical Tasks       | 3         | 21 |
|   | Facilitating Social Interaction             | 3         | 21 |
|   | Fostering Student Independence              | 3         | 21 |
|   | Checking/Grading                            | 2         | 14 |
|   | Data collection                             | 1         | 7  |
|   | Modifying assignments                       | 1         | 7  |

**Qualitative Responses about Job Role Self-Efficacy.** Respondents were prompted to “briefly describe why you think you are effective” in completing the task to

which they assigned the highest self-efficacy rating. For the 12 responses regarding high self-efficacy tasks, 6 themes were identified by consensus of 3 coders. The most common theme was Positive Relationship with Student (33% of responses). This theme was applied when the paraprofessionals indicated that their relationship with students made them more effective in completing the job role.

The following response exemplifies the Positive Relationship with Student theme: “I believe I am the most confident in providing personal care to my students because I am easily able to develop professional and respectful relationships with my students on an individual level and have them communicate with me honestly and effectively. Any problems they have, they can come to me for advice unless it is more suited for their teacher or counselor.”

Another common theme was Experience Completing the Task (25% of responses). This code was applied when the paraprofessionals indicated that they became competent in the job task over time, with repeated experience. One paraprofessional stated, “I make sure all of my responsibilities are completed daily prior to me leaving the school for the day. I have years of clerical experience.” The respondent cites “years of clerical experience,” as a reason he or she is able to successfully complete all responsibilities daily. Paraprofessionals were also prompted to describe the reasons they think they are less effective in completing the job role with their lowest self-efficacy rating. A total of 5 themes were identified within the 10 responses regarding low self-efficacy tasks.

The most common theme was Lack of Knowledge/Skills (60% of responses). This code was applied when responses indicated that paraprofessionals felt that they were

ineffective in completing the job role due to a lack of understanding of how to complete the role effectively. For example, one paraprofessional stated, "...as a para there's just some information you don't have access to. There's so many pieces to the puzzle."

Another paraprofessional reported, "Some of the students on the Autism spectrum have a difficult time expressing or understanding their emotions or the emotions of others and since I am newer to Autism behavior training, I am least qualified in that area." Complete descriptive data of Job Role Self-Efficacy are described in Table 4.

Table 4

| <i>Job Role Self-Efficacy</i>  |  |           |    |
|--|--|-----------|----|
| Item   | Theme                                      | Frequency | %  |
| You ranked [task with highest self-efficacy rating] as the job-related task you are most confident in completing effectively. Please briefly describe why you think you are effective in completing this task. (n = 12)      |  |           |    |
|  | Positive Relationship with Student         | 4         | 33 |
|  | Experience Completing the Task             | 3         | 25 |
|  | Enjoyment of the Task                      | 2         | 17 |
|  | Other                                      | 2         | 17 |
|  | Collaboration with Other Staff             | 1         | 8  |
|  | Relative Ease of Task                      | 1         | 8  |
| You ranked [task with lowest self-efficacy rating] as the job-related task you are least confident in completing effectively. Please briefly describe why you think you are less effective in completing this task. (n = 10) |  |           |    |
|  | Lack of Knowledge/Skills                   | 6         | 60 |
|  | Task Difficulty                            | 2         | 20 |
|  | Other                                      | 2         | 20 |
|  | Lack of Positive Relationship with Student | 1         | 10 |
|  | Lack of Experience with Task               | 1         | 10 |



**Research Question 3:** Do paraprofessionals think they need more training to feel effective in carrying out key job roles?

**Quantitative results about training needs.** Paraprofessionals were asked to rate their level of need for further training regarding 7 job roles. Ratings were provided on a scale from 1-100, with higher ratings indicating greater need for further training in the specified job role. Paraprofessionals were not forced to provide a training need rating for each role. Table 5 shows mean training need ratings for each job role, as well as the number of respondents providing ratings for each job role ( $n = 12$ ). Social Skills Facilitation and Providing Behavioral Support had the highest mean training need rating (71.89), and Checking Academic Work had the lowest mean training need rating (27.40).

A multi-level model (responses nested within 11 paraprofessionals) using Restricted Maximum Likelihood (REML) was used to examine variability in paraprofessional ratings of need for further training, and how perceived needs might vary according to levels of perceived efficacy. Although the level 2 sample size (11 paraprofessionals) was small, it is anticipated that the sample was minimally sufficient to produce estimates of variance components that were not substantially biased (e.g., McNeish & Stapleton, 2016). Results indicated approximately 60% of the variation in need for further training was attributable to individual paraprofessionals (level 2), and not to the job roles they complete (level 1). There was no significant relationship between paraprofessional levels of self-efficacy and perceived training need ( $p = .08$ ).

Table 5

| <i>Training Needs</i>   |           |   |
|---|-----------|---|
| Role  | Frequency | Descriptive Data                        |
|   |           | Training Need Rating (1-100)<br>M, (SD) |
| Academic Instruction  | 10        | 58.80, (33.62)                          |
| Social Skills Facilitation  | 10        | 57.90, (22.82)                          |
| Providing Behavioral Support  | 9         | 71.89, (23.82)                          |
| Modifying Academic Materials  | 7         | 36.43, (25.20)                          |
| Personal Care   | 5         | 58.43, (31.00)                          |
| Checking Academic Work  | 5         | 27.40, (26.32)                          |
| Clerical Tasks  | 9         | 34.40, (26.00)                          |
| <i>Note.</i> Higher mean rankings indicate greater perceived need for training. |           |   |

**Qualitative results about training needs.** Paraprofessionals were prompted to describe the reasons that they think they need further training in the task that they rated as having the highest need for training. For the 11 responses, 5 themes were identified by consensus of 3 coders. The most common theme was Desire to Improve (45% of responses). This theme was applied when the paraprofessionals indicated that they need more training regarding the job role because they wanted to improve their performance in that area. For example, one paraprofessional reported he or she, “Would like to learn more about this area so as to be more successful with my students.”

Table 6

*Perceived Training Needs*

| Item   | Theme                                | Frequency | %   |
|--|--------------------------------------|-----------|-----|
| You ranked [task with highest Training Need rating] as a task in which you may need more training. Please briefly describe why you think you need more training in this area. (n = 11) |                                      |           |     |
|  | Desire to Improve                    | 5         | 45% |
|  | Lack of Student-Specific Training    | 4         | 36% |
|  | Difficulty Implementing Intervention | 1         | 9%  |
|  | Other Staff have more Knowledge      | 1         | 9%  |
|  | No Training Received                 | 1         | 9%  |

A

nother theme commonly identified by coders was Lack of Student-Specific Training (36% of responses). This theme was coded when paraprofessionals indicated that they need further training specifically related to the needs and/or challenges presented by the specific students with whom they work. For example, a paraprofessional stated, “The training that we have gotten is helpful, but I would like more training on working with the specific kids that we work with. Training that gives us more details of how to deal with the kids in the ways we are allowed to. A lot of the times we are trained and then told we are doing it wrong.” Table 6 contains complete descriptive results regarding the qualitative data collected for perceived training needs of paraprofessionals.

**Qualitative results about barriers to receiving training.** Paraprofessionals were prompted to describe any barriers they have confronted regarding barriers to receiving necessary job training. For the 10 responses, 3 themes were identified by consensus of 3 coders. A total of 10 codes were applied, averaging 1 code per response. The most

common theme was No Barriers (60% of responses). This theme was applied when the paraprofessionals indicated that they have not encountered any barriers in terms of gaining access to desired training. The next most common theme was Lack of Access to Training Activities through School (30% of responses). Examples of responses coded within this theme were, “Not many trainings are offered to us,” and, “Just think it’s not a priority for the district.” Table 7 contains complete descriptive results regarding the qualitative data collected for barriers to training for paraprofessionals

Table 7

*Barriers to Training*

| Item  | Theme  | Frequency | %  |
|---|--|-----------|----|
| Are there any barriers to you gaining access to training? If so, please explain. (n = 10) |  |           |    |
|   | No Barriers  | 6         | 60 |
|   | Lack of Access to Training Activities through School | 3         | 30 |
|   | Lack of Access to Experts through School             | 1         | 10 |

## **Chapter IV: Discussion**

### **Introduction**

The present study was conducted to better understand the range of school-based paraprofessionals' job roles, their perceptions of their efficacy in completing these job roles, and whether they think they need further training to better carry out their job roles. To examine these issues, I developed and distributed a 22-question survey to paraprofessionals in two school districts. The questions included both quantitative and qualitative items. I sought to draw conclusions from the data that might serve to inform best practices in terms of training and supporting paraprofessionals. I also sought to make recommendations regarding directions for future research in the area. The present study had three research questions:

1. What are paraprofessionals' key job roles?
2. To what degree do paraprofessionals feel effective in carrying out their job roles?
3. Do paraprofessionals feel like they need more training to feel effective in carrying out key job roles?

### **Job Roles**

Existing literature indicates paraprofessionals are regularly asked to carry out a wide array of job roles (Carter et al, 2009; Fisher & Pleasants, 2012). Results of the present study are in agreement with these previous findings. Each of the seven job roles provided as options were endorsed by at least 30% of respondents, illustrating the wide variety of roles that surveyed paraprofessionals perform.

Paraprofessionals reported performing the roles of Social Skills Facilitation (65%), Providing Behavioral Support (60%), and Academic Instruction (50%) more commonly than the other role options provided. On average, Social Skills Facilitation and Providing Behavioral Support were also ranked as the roles paraprofessionals most often performed throughout their day. There was enough variability between the different job role categories to conclude statistically that the job roles differed in terms of frequency of performance. These results converge with previous survey-based research on paraprofessionals, which found the same roles to be among the most frequently performed (Carter et al., 2009).

Qualitative descriptions of paraprofessionals' daily routines converged with, broadened, and deepened the conclusions that could be drawn from the descriptive data. A total of 11 themes were identified by coders within paraprofessionals' descriptions of their daily tasks. These 11 themes generally mapped onto the 7 roles provided as options within the survey but also expanded upon them. This expansion of job roles within the qualitative responses is illustrated by the fact 65% of paraprofessionals reported performing 2 or more roles when prompted to select their roles from pre-determined response options, while 86% of open-ended responses regarding daily routines included 2 or more themes.

A notable theme that emerged from the qualitative responses was Supervising Student Activity (Non-Academic), which was coded in 43% of responses. The frequency of responses including this theme highlights paraprofessionals' ubiquity in providing care for students, within both the academic and non-academic realms. The data suggest that

paraprofessionals provide a wide range of services to students, from academic instruction to supervising students while they get on the bus.

Another theme emerging from the qualitative data was Fostering Student Independence (21%). While this theme does not map onto a specific job task, it speaks to some paraprofessionals' underlying goal of enhancing students' ability to independently complete their daily tasks. One participant clearly conveyed this idea, stating "I am there as helpful person to assist and remind the child of what's going on around him. Also, I try to stay in the background so he/she can figure out things for themselves I will step in if my attention is needed." This response may be indicative of this paraprofessional's perception of the need to simultaneously attend to the child's immediate needs and long-term goals. However, school administrators and staff should be mindful that students frequently in close proximity to paraprofessionals tend to have fewer interactions with peers (Malmgren & Causton-Theoharis, 2006).

### **Self-Efficacy**

Investigating paraprofessional self-efficacy was an important aspect of the present study because previous literature regarding paraprofessionals' self-efficacy is limited. High self-efficacy is connected to an ability to persist in completing demanding tasks. Therefore, self-efficacy may be particularly important to paraprofessionals, who are expected to undertake difficult tasks regularly while working with challenging students (Woolfolk, 1990; Bandura, 1997).

Participating paraprofessionals' average self-efficacy ratings were above 80 (out of 100) for each of the 7 listed job roles, indicating that the participants may feel generally competent in carrying out their job roles. Interestingly, the 3 most commonly

completed job roles (Social Skills Interaction/Facilitation, Providing Behavioral Support, and Academic Instruction) had the lowest averages in terms of self-efficacy ratings. The limited sample size of the present study precluded a test of significance for this finding, but future research on self-efficacy related to commonly performed job tasks could yield useful results. This finding may indicate that paraprofessionals feel least effective in completing the tasks they are most often asked to perform.

There were two qualitative items related to respondents' self-efficacy. The first qualitative item prompted participants to describe why they felt effective in completing the task to which they assigned the highest self-efficacy ranking. The most commonly identified theme found within responses about high self-efficacy tasks was Positive Relationship with Student. Experience Completing the Task was the next most common theme. Taken together, these themes point to the importance of both tangible (practice in completing job tasks) and intangible (building rapport with students) factors that lead to high self-efficacy. In practice, this might require that paraprofessionals and students be afforded free time or play time, during which they can share enjoyment with one another.

The second qualitative item prompted respondents to describe why they felt ineffective in completing the task to which they assigned the lowest self-efficacy rating. Responses indicated that a Lack of Skills and Knowledge was the most common cause respondents' lack of self-efficacy by a wide margin. This finding may point to a need for further training in these areas, or discussions about potentially redefining paraprofessionals' job roles. The qualitative findings regarding paraprofessional self-efficacy emphasize the value in asking paraprofessionals to describe, in their own words, what makes them feel effective or ineffective in completing certain job roles.



### **Training Needs**

Using multi-level modeling, it was determined that 60% of paraprofessionals' perceived need for further training was related to individual factors, rather than the roles that they complete. This indicates that it may be necessary to ask paraprofessionals about their perceived training needs, rather than assume they need training because they carry out a particular role. Although there were few clusters for analysis, conducting a multi-level model likely produced unbiased or minimally biased estimates of variance components, and helped address potential bias in the standard errors of fixed effects (McNeish & Stapleton, 2016).

In the present study, average training need ratings show that Providing Behavioral Support (71.89) is the role for which paraprofessionals most desire further training. Personal Care, Academic Instruction, and Social Skills Facilitation had the next highest ratings, with averages between 57 and 59. This pattern of training needs ratings converges with the self-efficacy ratings, which show Social Skills Facilitation, Providing Behavioral Support, and Academic Instruction as the tasks in which respondents feel least effective. It makes sense that paraprofessionals would feel a higher need for training in job-related tasks that they feel less effective in completing.

Participating paraprofessionals often indicated that a general desire to improve their job performance drove their perceived need for further training in certain job tasks. Respondents also frequently expressed that they lacked training related to the specific students with whom they worked. These responses indicate that participants want to better serve the needs of the students with whom they work on a daily basis. Prior research in the area of paraprofessional training indicates that a strong way to address

paraprofessionals' desire for student-specific training opportunities is experiential or on-the-job training (Walker & Smith, 2015). Within experiential learning, techniques such as modeling and provision of feedback have shown to be highly effective training methods, which can be utilized to teach paraprofessionals how to carry out their job tasks within the work setting, with the students they serve regularly.

### **Implications for Practice and Future Directions**

**Implications for future research.** The present study replicated some of the findings of past research, including the diversity of roles performed by paraprofessionals (Carter et al., 2009) and paraprofessionals' desire for further training (Patterson, 2006). Several themes within the qualitative data in the present study point to potentially interesting directions for future research. For example, paraprofessionals' qualitative responses regarding self-efficacy show that having a strong relationship with students causes them to feel more effective in carrying out job-related tasks with those students. Future research regarding the strength of paraprofessionals' relationships with students and the effects that relationships may have on perceived efficacy and training needs could be fruitful.

Another area future researchers could further explore is self-efficacy in paraprofessionals. The present study is one of very few in the literature that addresses this topic, despite the existence of a great deal of research on self-efficacy in teachers. The literature on self-efficacy in teachers shows that higher self-efficacy is associated with higher student achievement and motivation (Ashton & Webb, 1986). It would be useful to examine whether self-efficacy in paraprofessionals has a similar predictive relationship with positive outcomes for students.

Several other questions for further study related to self-efficacy arise. For example, do paraprofessionals with higher self-efficacy tend to benefit more greatly from training or consultation opportunities? Research on teachers suggests that those with higher levels of self-efficacy tend to rate expert consultants as more effective and interventions as more acceptable than peers with lower self-efficacy (Wood, 1992). Therefore, it may hold that paraprofessionals with higher self-efficacy would also be more open to and successful with consultation. It would also be interesting to examine whether paraprofessionals that execute fewer roles, or that change job roles less frequently, exhibit higher levels of self-efficacy.

Another question to be examined by future researchers is whether low paraprofessional self-efficacy is indicative of inappropriate use of paraprofessionals. While it may be the case that paraprofessionals that feel ineffective need remediation or further training, it is also possible that they are being asked to undertake tasks that would be better completed by other professionals in the building, such as teachers, school psychologists, speech and language pathologists, or behaviorists.

**Implications for School Administrators.** Several implications for school administrators regarding management of paraprofessionals can be drawn from the present study. Paraprofessionals reported performing a wide array of job roles. Therefore, it may be useful for administrators to periodically check in with paraprofessionals to hear what kinds of tasks they are undertaking on a daily basis. With students' and teachers' needs constantly shifting in the classroom, paraprofessionals may be asked to carry out tasks for which they are not trained, or with which they are not comfortable. Administrators may

find that they are not always aware of the tasks that teachers regularly ask paraprofessionals to complete.

Relatedly, it is important to ask paraprofessionals how they feel about their job roles, and whether they feel they need more training or guidance in any specific areas. Paraprofessionals may not feel empowered to express their desire to improve or learn, so providing a non-judgmental space where paraprofessionals can discuss their experience and needs for further training may be beneficial.

Several paraprofessionals in the present study expressed a desire for more training related to handling the specific needs of students with whom they work. To address this need, experiential training methods, such as on-the-job coaching may be beneficial. Training methods like this have been shown to be more effective than other types of training, such as didactic training and in-service training (Walker & Smith, 2015).

An interesting finding from open-ended responses was that several paraprofessionals attributed their high confidence in carrying out job roles to their positive relationships with the student(s). This finding suggests paraprofessionals who get along well with students may also feel more effective in serving these students' needs. Therefore, it may be beneficial to take action aimed at fostering positive relationships between paraprofessionals and the students with whom they work. Such actions could include ice breakers and activities that allow students to get to know paraprofessionals on a more personal level. Allowing paraprofessionals to distribute rewards to students (when earned) could also serve to increase their bond.

Finally, administrators should be sure that paraprofessionals maintain awareness of students' long-term goals. The present study shows that paraprofessionals are regularly

asked to solve problems on the spot by providing behavioral interventions, assistance with schoolwork, or personal care. As some paraprofessionals expressed, it is also important to keep in mind that students benefit from becoming more independent in their daily functioning over time. Paraprofessionals may feel like solving problems for students and providing them as much support as possible is their responsibility (and it often is). However, it is also important for paraprofessionals to express confidence in students' ability to overcome obstacles and fix mistakes. Sometimes, showing confidence in students means giving them space and time to reflect, learn, and build relationships with peers without an adult over their shoulder.

**Limitations**

Several limitations were noted in the present study. The 20 responses to the survey were satisfactory for drawing conclusions from the qualitative data. However, the number of respondents caused available methods of quantitative analysis to be constrained, due to a lack of statistical power. An increased sample size would allow for further statistical analyses as well as strengthened external validity. The survey was distributed after New Jersey schools shut down due to the COVID-19 pandemic, which was an unforeseen circumstance that may have affected response rates. Paraprofessionals may have retained fewer job-related responsibilities after remote schooling began, which may have caused them to be less likely to check their district email addresses.

Another threat to the external validity in the present study is the fact that the two schools from which paraprofessionals were sampled serve a primarily white, affluent student population. It is likely that paraprofessionals' roles differ depending on the needs of the community. For example, paraprofessionals may be asked to translate to facilitate

parent engagement in communities where multiple languages are spoken. Additionally, paraprofessionals' access to training may be affected by the amount of funding a school district receives. Future research on paraprofessionals should be sure to sample paraprofessionals serving diverse communities.

The survey provided to respondents in the present study did not have established reliability or validity, although strong inter-rater reliability was established for the coding procedure used for the qualitative data. The quantitative data gathered by the present study would be stronger with if collected using an established, tested measure, but it was not feasible to recruit enough participants to do this, given the scope of this study. The creation of a reliable and valid scale of paraprofessional self-efficacy may be an avenue for future research. The qualitative data gathered in this study may be useful for eventual scale development, as it provides a strong basis for the type of items that should be included in a scale. For example, prior to the present study, it may not have occurred to potential researchers that paraprofessional-student relationships should be examined. Such relationships could be operationalized within a scale by prompting paraprofessionals to rate the strength of their relationships with students on a Likert scale.

## **Conclusion**

Paraprofessionals in the school setting are typically at the forefront of delivering a range of direct services to students in special education. The aim of the present study was to examine the range of paraprofessionals' job roles, their self-efficacy in carrying out their job roles, and their perceived training needs. Results of the present study illustrate the wide range of roles paraprofessionals are expected to perform. Paraprofessionals in the present study most commonly reported providing social skills facilitation, behavioral

support, and academic instruction. However, paraprofessionals expressed low confidence in their ability to effectively carry out those roles, relative to other job-related tasks.

Participating paraprofessionals expressed a desire for further training to better serve the students with whom they work. On-the-job training opportunities, rather than didactic or in-service training, may be an effective way of addressing this desire (Brock & Carter, 2015). Such “in-the-moment” training, may help paraprofessionals build a toolbox of skills and techniques tailored to their students’ specific characteristics and needs.

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**Appendix A**Paraprofessional Training, Roles, and Self-Efficacy Survey

1. Please mark your gender.

- ☐ Male
- ☐ Female
- ☐ Non-binary

2. Please identify your ethnicity.

- ☐ White
- ☐ Black or African American
- ☐ Native American
- ☐ Asian or Pacific Islander
- ☐ Hispanic or Latino
- ☐ Mixed
- ☐ Other

3. What is your age?

- ☐ 20-30
- ☐ 30-40
- ☐ 40-50
- ☐ 60-70
- ☐ 70+

4. How many years have you worked as a paraprofessional?

- ☐ 0-1



- ☐ 1-3
- ☐ 3-5
- ☐ 5-10
- ☐ 10+

**5.** What is the special education classification status of the student(s) that you primarily work with? Mark all that apply.

- ☐ Hearing Impairment
- ☐ Autism
- ☐ Cognitively Impaired
- ☐ Communication Impaired
- ☐ Emotionally Disturbed
- ☐ Multiply Disabled
- ☐ Deaf/Blindness
- ☐ Specific Learning Disability
- ☐ Other Health Impairment
- ☐ Social Maladjustment
- ☐ Preschool Child with a Disability
- ☐ Orthopedically Impaired
- ☐ Traumatic Brain Injury
- ☐ Don't Know

☐ None

**6.** Please select the option that best describes your role.

☐ One-to-one aide

☐ Classroom aide

☐ Other

7. In what type of classroom do you spend most of your time working?

- ☐ General education classroom
- ☐ Self-contained special education classroom
- ☐ Inclusive classroom (with general education and special education students)

8. What is the grade level of the students with whom you work? Mark all that apply.

- ☐ Preschool
- ☐ Kindergarten
- ☐ 1st Grade
- ☐ 2nd Grade
- ☐ 3rd Grade
- ☐ 4th Grade
- ☐ 5th Grade
- ☐ 6th Grade
- ☐ 7th Grade
- ☐ 8th Grade
- ☐ 9th Grade
- ☐ 10th Grade
- ☐ 11th Grade
- ☐ 12th Grade

☐ Adult program

**9.** Do you complete any of the following job-related tasks? Please mark all that apply.

☐ Personal Care (Assisting students with specific personal needs)

☐ Academic Instruction (Teaching)

☐ Social Skills Facilitation

☐ Monitoring/Checking Academic Work

☐ Adapting/Modifying Academic Materials

☐ Completing Clerical Tasks (paperwork, copying, grading work, etc.)

☐ Providing Behavioral Support

**10.** Which job-related tasks do you complete most often? Drag and drop to order the tasks from most often completed to least often completed.

- \_\_\_\_\_ Personal Care (Assisting students with specific personal needs)
- \_\_\_\_\_ Academic Instruction (Teaching)
- \_\_\_\_\_ Social Skills Facilitation
- \_\_\_\_\_ Monitoring/Checking Academic Work
- \_\_\_\_\_ Adapting/Modifying Academic Materials
- \_\_\_\_\_ Completing Clerical Tasks (paperwork, copying, grading work, etc.)
- \_\_\_\_\_ Providing Behavioral Support/Interventions








**11.** You ranked (TASK RANKED AS MOST OFTEN COMPLETED) as the job-related task you most often complete. Please briefly describe what this task looks like for you.

**12.** In your own words, please briefly describe "what you do" on an average day at work. You may describe activities you take part in, the nature of your interactions with students, or any daily routines that are an important part of your day.

**13.** Please rate the following statements from 0 (Strongly Disagree) to 100 (Strongly Agree).

70      90

0   10   20   30   40   50   60      80      100

|   |   |
|---|---|
| I can effectively provide personal care to my students.                             |   |
| I can effectively provide academic instruction (teaching) to my students.           |   |
| I can effectively instruct or facilitate social skills for my students.             |   |
| I can effectively monitoring or check students' academic work.                      |   |
| I can effectively adapt or modify academic materials.                               |   |
| I can effectively complete clerical tasks (paperwork, copying, grading work, etc.). |   |
| I can effectively provide behavioral support or interventions.                      |  |

**14.** You ranked (TASK WITH HIGHEST CONFIDENCE RATING) as the job-related task you are most confident in completing effectively. Please briefly describe why you think you are effective in completing this task.

**15.** You ranked (TASK WITH LOWEST CONFIDENCE RATING) as the job-related task you are least confident in completing effectively. Please briefly describe why you think you are less effective in completing this task.

**16.** Have you received any specific training related to the following job-related tasks? Please mark all that apply.








- ☐ Personal Care (Assisting students with specific personal needs)
- ☐ Academic Instruction (Teaching)
- ☐ Social Skills Facilitation
- ☐ Monitoring/Checking Academic Work
- ☐ Adapting/Modifying Academic Materials
- ☐ Completing Clerical Tasks (paperwork, copying, grading work, etc.)
- ☐ Providing Behavioral Support

**17.** What type of training did you receive for the tasks that you marked above? Mark all that apply.

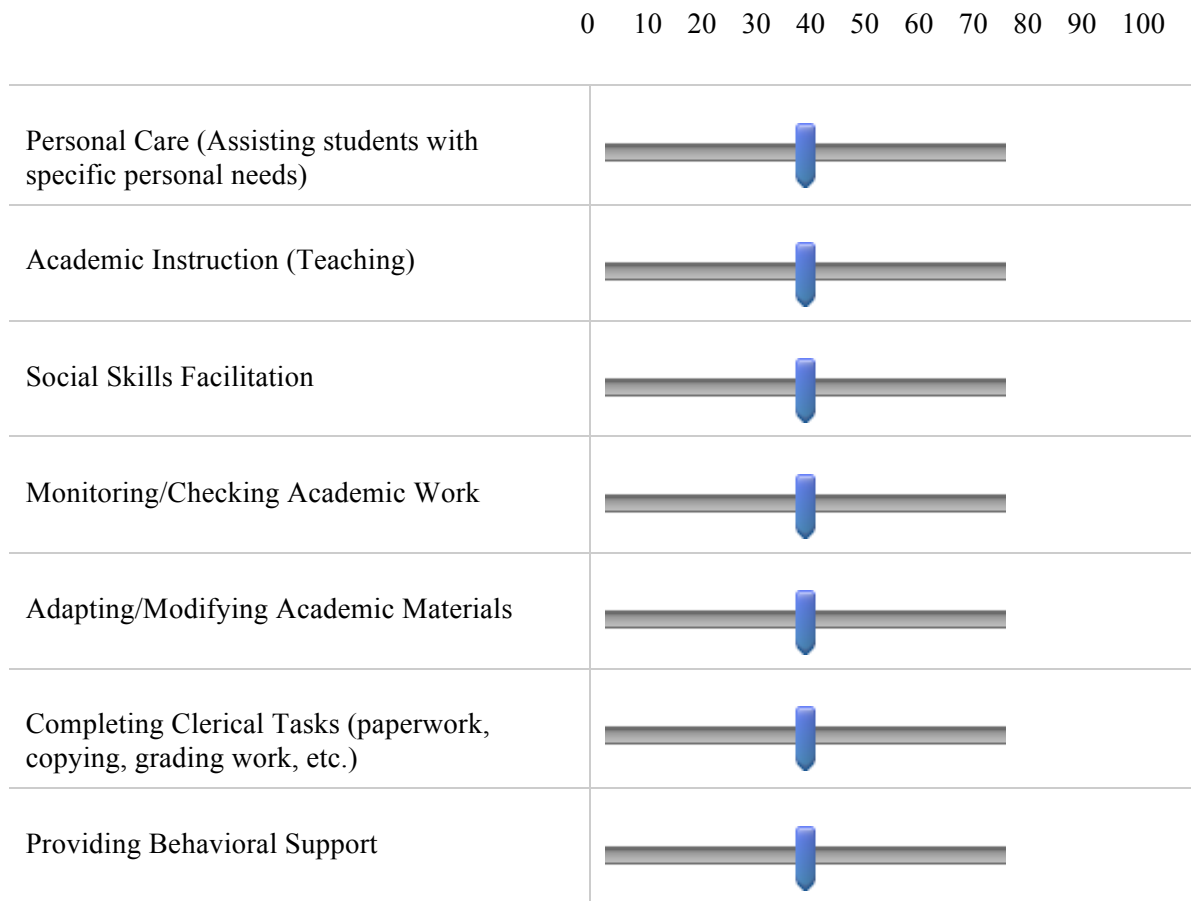
- ☐ On-the-job training
- ☐ In-service training
- ☐ Conference training
- ☐ Online training
- ☐ Other type of training

**18.** Please rate the effectiveness of the training you received in each job-related task (0 = least effective; 100 = most effective).

0 10 20 30 40 50 60 70 80 90 100

|  |  |
|--|--|
| Personal Care (Assisting students with specific personal needs)    |    |
| Academic Instruction (Teaching)                                    |    |
| Social Skills Facilitation   |    |
| Monitoring/Checking Academic Work                                  |    |
| Adapting/Modifying Academic Materials                              |    |
| Completing Clerical Tasks (paperwork, copying, grading work, etc.) |   |
| Providing Behavioral Support                                       |  |

**19.** For which job-related tasks would you like to receive more training? Please rate your need for further training in each job-related task (0 = no need for further training; 100 = extremely high need for further training).



**20.** You ranked (TASK RATED AS HIGHEST NEED FOR FURTHER TRAINING) as a task in which you may need more training. Please briefly describe why you think you need more training in this area.

**21.** Are there any barriers to you gaining access to training? If so, please explain.

**22.** If you wish to be entered into a drawing for a \$50 Amazon Gift Card, please enter your email address here. Your email address will be automatically separated from the rest of your responses. Your email address will never be connected to the rest of your responses, so that your other responses remain anonymous.



## Appendix B

### Survey Cover Letter

Dear School Staff Member,

I request your help with a study being conducted by Rutgers University exploring paraprofessionals' job roles, training needs, and self-efficacy.

Title of Study: Survey of Paraprofessionals' Job Roles, Training Needs, and Self-Efficacy

Study Leader: Jordan Levine

Your participation in this research is voluntary and you have the right to withdraw or refuse to answer any questions without penalty. If you have any questions now or during the study, you are welcome to ask them by contacting Jordan Levine or the Rutgers IRB. It is your choice whether to take part in the research.

By completing the following survey and providing your email address, you will be automatically entered into a random drawing for a **\$50 Amazon Gift Card**. If you choose to provide your email address, your email address will be separated from the rest of your responses, so that the rest of your responses remain anonymous. One winner will be randomly selected within one week of the survey closing for responses. The winner of the random drawing will be sent the gift card via email within one week of the survey being closed for responses. There are no costs associated with being in this study. You will not benefit personally. However, I hope that others may benefit from what is learned from this study. **If you wish not to participate, please do not click the link to the survey below.**

To ensure confidentiality, please omit any identifying information on the survey, outside of your email address should you choose to provide it. When you submit your responses to the survey, the link between this code and your email address will be known only by investigators for the purpose of sending a replacement survey if necessary and sending the gift card should you win the random drawing. Please review the Consent Form included in this survey.

If you have questions or concerns, please contact me via the information atop this letterhead. You can also contact the Institutional Review Board which approved this study:

Arts and Sciences IRB New Brunswick  
Office of Research Regulatory Affairs, Rutgers University  
335 George Street / Liberty Plaza / 3rd Floor / Suite 3200  
New Brunswick, NJ 08901  
Phone: 732-235-9806 / E-mail: [irb-admin@grants.rutgers.edu](mailto:irb-admin@grants.rutgers.edu)

**The link below will take you to the online survey:**

**(LINK)**

Best wishes,

Jordan Levine, PsyM  
Principal Investigator  
Assistant Professor  
Graduate School of Applied and Professional Psychology  
Rutgers University-New Brunswick



**Appendix C****CONSENT FORM**  
**FOR ANONYMOUS DATA COLLECTION**

You are invited to participate in a research study that is being conducted by Jordan Levine, PsyM, who is a graduate student in the Graduate School of Applied and Professional Psychology at Rutgers University. The purpose of this research is to determine paraprofessionals' roles, training needs, and self-efficacy related to their job-related duties.

This research is anonymous. Anonymous means that I will record no information about you that could identify you. There will be no linkage between your identity and your response in the research. This means that I will not record your name, address, phone number, date of birth, etc. If you agree to take part in the study, you will be assigned a random code number. Your email address will appear only on a list of subjects, and will not be linked to the code number that is assigned to you. There will be no way to link your responses back to you. Therefore, data collection is anonymous. To ensure confidentiality, please omit any identifying information on the survey.

The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated. All study data will be kept for three years.

There are no costs or foreseeable risks to participation in this study. In addition, you may receive no direct benefit from taking part in this study. Your inclusion in a random drawing for a \$50 Amazon Gift Card will be guaranteed by your submission of the survey that follows.

Participation in this study is voluntary. You may choose not to participate, and you may withdraw at any time during the study procedures without any penalty to you. In addition, you may choose not to answer any questions with which you are not comfortable.

If you have any questions about the study or study procedures, you may contact myself at 152 Frelinghuysen Rd, Office **A353**, Graduate School of Applied and Professional Psychology, Rutgers University, Piscataway, NJ 08854-3981; Email: [jordan.levine@gsapp.rutgers.edu](mailto:jordan.levine@gsapp.rutgers.edu); Phone: 973-270-6987.

If you have any questions about your rights as a research subject, please contact an IRB Administrator at the Rutgers University, Arts and Sciences IRB:

Institutional Review Board  
Rutgers University, the State University of New Jersey  
Liberty Plaza / Suite 3200  
335 George Street, 3<sup>rd</sup> Floor  
New Brunswick, NJ 08901  
Phone: 732-235-2866  
Email: [human-subjects@ored.rutgers.edu](mailto:human-subjects@ored.rutgers.edu)

Please retain a copy of this form for your records. By participating in the above stated procedures, then you agree to participation in this study.

## Appendix D

### Dissertation Coding Scheme

**In your own words, please briefly describe the job tasks expected of you on an average day at work. You may describe activities you take part in, the nature of your interactions with students, or any daily routines that are an important part of your day.**

- A. **Personal Care:** Responses reflect a task in which paraprofessionals attend to the specific needs of an individual student.

Ex:

“Check that he brought lunch, order lunches if needed”  
“I inscribe for him when needed”

- B. **Assisting Teacher with Clerical Tasks:** Responses reflect a task in which paraprofessionals help teachers by providing secondary support to help the school day run smoothly.

Ex:

“Assist in printing out the iPad document for the teacher to grade”  
“Assist teachers throughout their daily classroom activities”  
“I help the teacher in the class with anything she needs such as making copies of assignments or work”

- C. **Behavioral Intervention:** Responses reflect actions taken mitigate risk of future problem behavior, resolve student conflict or misbehavior, or help students use strategies to become calm when acting out.

Ex:

“Just reminding of acceptable behaviors”  
“If there is a problem behaviorally, I remove the child from the room and take them on a small break”

- D. **Supervising Student Activity (Non-Academic):** Responses reflect oversight of student activities outside of academic work.

Ex:

“Supervise behavior and conversation during students’ lunch and recess”  
“Manage playground and lunchroom”

- E. **Facilitating Social Interaction:** Responses reflect assisting students by teaching them social skills or helping them communicate with other students or staff appropriately.

Ex:

“Facilitate social interaction”

“All social care”

- F. **Fostering Student Independence:** Responses reflect a goal of helping or encouraging students to complete their daily routines with less assistance from adults.

Ex:

“I try to stay in the background so he/she can figure out things for themselves. I will step in if my attention is needed.”

- G. **Academic Instruction:** Responses reflect directly teaching students academic material.

Ex:

“During academic classes, I take a small group to another room and teach them the lesson for that period”

“Teach them lessons they are working on that day”

- H. **Checking/Grading:** Responses reflect tasks focused on looking over or correcting students’ academic work.

Ex:

“Grade work if needed”

- I. **Data Collection:** Responses reflect a focus on gathering and recording information regarding student activity.

Ex:

“Monitor and take data”

“I document the student’s behavior”

- J. **Modifying Assignments:** Responses reflect tasks aimed at changing the content of a students’ academic work in an effort to make it more accessible.

Ex:

“Help with his modifications for math work”

- K. **Assisting Students with Academic Work:** Responses reflect the tasks of helping students with their schoolwork (not teaching).

Ex:

“Supporting him on academic work”

“Assist them with their work”

**You ranked (JOB TASK WITH HIGHEST SELF-EFFICACY RATING) as the job-related task you are most confident in completing effectively. Please briefly describe why you think you are effective in completing this task.**

- A. **Positive Relationship with Student:** Responses refer to successfully building rapport with a student.

Ex:

“I am easily able to develop professional and respectful relationships with my students on an individual level”  
“I inscribe for him when needed”

- B. **Experience Completing the Task:** Responses refer to prior knowledge and practice carrying out the job role.

Ex:

“I have years of clerical experience”  
“I have learned how to keep students on task”

- C. **Enjoyment of the Task:** Responses refer to intrinsic satisfaction of carrying out the job role.

Ex:

“I love to teach and am effective in working with these students”

- D. **Relative Ease of Task:** Responses reflect that the task is perceived to be simple to carry out.

Ex:

“It’s easy”

- E. **Other:** Responses do not directly answer the question.

Ex:

“Once again, to have materials ready”

**You ranked (JOB TASK WITH LOWEST SELF-EFFICACY RATING) as the job-related task you are least confident in completing effectively. Please briefly describe why you think you are less effective in completing this task.**

- A. **Lack of Knowledge/Skills:** Responses reflect a perceived deficiency in skills or understanding needed to effectively complete the task.

Ex:

“I am least qualified in this area”

“I have a difficult time expressing or understanding their emotions since I am newer to Autism behavior training”

- B. **Task Difficulty:** Responses reflect that the task is perceived as difficult to carry out.

Ex:

“I think the behavioral support or interventions are difficult for everyone involved”

- C. **Lack of Positive Relationship with Student:** Responses refer to difficulty building rapport with a student.

Ex:

“It took a while for me to establish a relationship with the child”

- D. **Lack of Experience with Task:** Responses refer to intrinsic satisfaction of carrying out the job role.

Ex:

“I have been out of schools for many years and have not done it before”

- E. **Other:** Responses do not directly answer the question.

Ex:

“I am not less confident in this”

**You ranked (TASK WITH HIGHEST TRAINING NEED RATING) as a task in which you may need more training. Please briefly describe why you think you need more training in this area.**

- A. **Desire to Improve:** Responses reflect a wish to get better at carrying out the task.

Ex:

“I believe there is always room for me to improve on my abilities to assist children”

“Would like to learn more about this area so as to be more successful with my students”

- B. **Lack of Student-Specific Training:** Responses reflect an absence of training that addresses the needs of the actual students with whom paraprofessionals work.

Ex:



“I would like more training on working with the specific kids that we work with”

“Social skills training to be adapted to individual’s needs”

- C. **Difficulty Implementing Intervention:** Responses refer to difficulty of carrying out an intervention.

Ex:

“I sometimes have a difficult time expressing to students the correct method of social interaction”

- D. **Other Staff Have More Knowledge:** Responses refer to the paraprofessional having relatively less understanding of a task than other staff members.

Ex:

“Because the teachers know more about teaching than the aides”

- E. **No Training Received:** Responses reflect a lack of any training opportunities related to the task.

Ex:

“Never received any kind of training”

**Are there any barriers to you gaining access to training? Please explain.**

- A. **Lack of Access to Training Activities through School:** Responses reflect a shortage of opportunities for training provided by the school.

Ex:

“Not many trainings offered to us”

“Just not a priority of the district”

- B. **Lack of Access to Experts through School:** Responses reflect a shortage of opportunities to receive training from experts in the school.

Ex:

“We need more behaviorists to meet the needs”

- C. **No Barriers:** Responses indicate that there is nothing getting in the way of receiving training.

Ex:

“No”

- D. **No Training Received:** Responses reflect a lack of any training opportunities related to the task.

Ex:

“Never received any kind of training”