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Guidance and Support for One-to-One Paraprofessionals: A Multiple Regression Analysis

Amanda A. Agurkis
amandaagurkis@gmail.com

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A Multiple Regression Analysis

Amanda A. Agurkis

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Lynn Cohen, Ph.D., Chairperson, Dissertation Committee
Kathleen Feeley, Ph.D., Committee Member
Ruth Guirguis, Ed.D., Committee Member

Doctoral Program in Transformational Leadership Studies
College of Education, Information, and Technology
Long Island University
LIU Post Campus

DEDICATION

I dedicate this dissertation to my parents, Michael and Suzanne Agurkis, who have given me unconditional love and support, here on this Earth and from the other side. My mom, who listens to every thought I have, helps me talk through decisions to make, and motivates me every day to keep going. My dad, who would make sure I worked on writing every day and would have work sessions with me. He even continues to show me his support though he is not physically here to watch me defend.

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Abstract

Research has focused on methods to support, train, and prepare one-to-one paraprofessionals from perspectives of administrators and teachers. This quantitative study extended research by investigating perspectives of one-to-one paraprofessionals on preparation, support, communication, feedback, and involvement in planning. These variables were investigated using 20 statements on a Likert-scale survey. Demographic information of participants include age, gender, age level of student, passage of the Assessment of Teaching Assistant Skills (ATAS), years of experience in education, type of class student is in, and professional preparation were surveyed as well. A convenience sample of 50 participants responded to the survey. Pearson's correlation coefficients were determined for each Likert-scale statement variable to measure the strength of their associations. After a strong association was determined, composite scores for each variable measuring each hypothesis were created. A multiple linear regression analysis was run for each research question. Results from these analyses created highly statistically significant models ($p(F)<.05$). These models indicated that perceived preparation, support, communication, feedback, and planning all contribute significantly to the overall role of one-to-one paraprofessionals working in public schools in Long Island, New York. Averaged perceived support had the most influence on average perceived preparation ($\beta=.40$) and average perceived communication ($\beta=.49$) had the most positive influence on average perceived feedback. Preparation methods such as providing one-to-one paraprofessionals with a job description or establishing meeting times for those involved are small changes that can promote positive change. This information will help administrators prioritize support for one-to-one paraprofessionals working in public schools in Long Island, New York.

Keywords: one-to-one paraprofessional, preparation, support, communication, feedback, planning, professional learning community, multiple linear regression analysis

CHAPTER I

INTRODUCTION

Vignette

This study began with a personal narrative to provide the reader with an introduction and reasoning for the subject choice. A one-to-one paraprofessional was assigned to a second-grade student on the autism spectrum with a severe peanut allergy. A one-to-one paraprofessional is also referred to as a classroom aide, teacher assistant, paraeducator, or support staff member. The role of this one-to-one paraprofessional was to refocus and redirect the student to the lesson and to always carry the child's EpiPen and administer in the event of an emergency. The special education teacher started to notice the one-to-one paraprofessional writing down the student's homework, unpacking the student's backpack in the morning, and packing him up at the end of the day. The special education teacher tells the paraprofessional that the student needs to be more independent, but she finds the one-to-one paraprofessional continuing to complete these tasks for the child. These types of conversations can lead to the one-to-one paraprofessional questioning his or her role with the student with a disability and in the classroom. When the one-to-one paraprofessional is absent one day, the student refuses to pack his backpack, a task that he was capable of doing at the start of the year.

Background of the Study

The situation above is common in classrooms in which students receiving special education services are served. Did the one-to-one paraprofessional receive information and guidance before beginning the position? Who is responsible for providing one-to-one paraprofessionals guidelines for supporting children? If one-to-one paraprofessionals are provided clear, transparent guidance and support, situations similar to the one described above

may occur less. Additionally, one-to-one paraprofessionals can gain a greater sense of purpose and ultimately feel more successful within their role if school districts offer support specific to their needs. One-to-one paraprofessional preparation warrants clear, explicit guidance in the public-school setting. To provide this type of guidance, one-to-one paraprofessionals need to be asked for their input.

Definitions of One-to-One Paraprofessional

One-to-one assistance is a method of support that may be provided to students with disabilities regardless of the setting (e.g., a general education or special education classroom). According to the New York State Education Department, one-to-one assistance is considered a "related service." Related services are defined as "developmental, corrective, and other supportive services as are required to assist a student with a disability" (The New York State Education Department, 2016). The goal of one-to-one assistance is to provide additional support to the students in classrooms. One-to-one paraprofessionals can be used in extra curricula experiences, such as field trips and after-school activities, to ensure students with disabilities are included in a variety of settings (Hendricks et al., 2017; The New York State Education Department, 2016). Although one-to-one paraprofessionals are an effective support for students with disabilities, their roles and responsibilities across settings can be ambiguous.

Researchers define paraprofessional (Doyle, 1998) and one-to-one paraprofessional (Moshe and Licht, 2016) slightly differently. Doyle's (1998) definition of a paraprofessional is:

> those whose positions are either instructive in nature who deliver other direct services to students and/or their parents; and who work under the supervision of teachers or other professional staff who have the ultimate responsibility of the design, implementation, and evaluation of instructional programs and students' progress. (p. 7)

Most paraprofessionals are not certified as classroom teacher but have a wide range of roles and

responsibilities to support teachers and students with disabilities in the classroom (Doyle, 1998).

Paraprofessionals can work with both general education and special education students. More

specifically, a one-to-one paraprofessional typically works with a special education student.

Moshe and Licht (2016) define one-to-one paraprofessionals as individuals who "provide

special-needs students one-to-one accompaniment, allowing them to function in the general

education classroom and reducing the onus on the classroom teacher in such cases" (p.2795).

One-to-one paraprofessionals can be used in the classroom for social and behavioral needs,

personal hygiene needs, academic support, or health concerns (Rutherford, 2011). The New York

State Department of Education identifies the role of a one-to-one paraprofessional to assist the

student with disabilities with related instructional work or to assist in implementing a behavioral

intervention plan (Geary, 2016; Infante-Green, 2016). Inclusive supports from one-to-one

paraprofessionals can be used in a variety of settings. Effective inclusion is determined by

quality education to appropriately meet the needs of the learner regardless of the environment

(Glazzard, 2011). The term one-to-one paraprofessional can have multiple variations. These

terms include one-to-one, instructional assistant, instructional aide, one-to-one teacher assistant,

one-to-one teacher aide, inclusion assistant, teacher aide, teacher assistant, paraeducator, and/or

one-to-one educator. For the purpose of this study, the term one-to-one paraprofessional will be

used throughout the remainder of the dissertation.

Evolution of One-to-One Support

There are more students with disabilities in public school now than ever before. With this

change, there has been an increase in the number of one-to-one paraprofessionals in the public

education classroom (Chopra & Giangreco, 2019). The increase implies that one-to-one

paraprofessionals are being relied on more to support students with disabilities in the general

education classroom (i.e., inclusion). Teaching assistants or paraprofessionals were first

introduced into the classroom as assistance for the classroom teacher. As more students with

special needs receive supports in the larger classroom setting, paraprofessionals gain more

responsibilities. One-to-one paraprofessionals provide a wide variety of supports to enable

students with disabilities to best learn in the least restrictive environment (LRE). LRE is a

provision of the Individuals with Disabilities Education Act (IDEA). According to federal

regulations:

> 1. that to the maximum extent appropriate, children with disabilities, including children
>
> in public or private institutions or other care facilities, are educated with children who are
>
> not disabled: and

> 2. that special classes, separate schooling or other removal of children with disabilities
>
> from the regular educational environment occur only when the nature or severity of the
>
> handicap is such that education in regular classes with the use of supplementary aids and
>
> services cannot be achieved satisfactorily (34 C.F.R. Sec. 300.550).

Rather than placing a student based on their disability in a separate academic setting, a

one-to-one paraprofessional can tailor learning activities, and lessons to best meet the student's

individual needs in the general education setting (Giangreco, 2017). The variety of support

benefits students with disabilities by addressing academic, behavioral, and social needs. With

more responsibility should always come more knowledge and training. Walker and Smith (2015)

indicate that students of paraprofessionals who received training demonstrated positive academic

outcomes. Studies analyzing one-to-one embedded instruction demonstrated that one-to-one

paraprofessionals can accurately implement embedded instructional interventions with minimal training (Jameson et al., 2007; McDonnell et al., 2006). To enhance inclusive programming, the performance of one-to-one paraprofessionals can improve from increased guidance and support.

Students receiving special education services in the general classroom, evolved from how it was 20 years ago. Twenty years ago, it was not common for students with special needs to be taught alongside of their general education peers in a public-school setting. The use of a one-to-one paraprofessional has become an increasingly popular method of inclusion for students with disabilities (Giangreco, 2010). The No Child Left Behind Act (NCLB) (2002) was resigned in 2015 as ESSA (United States Department of Education, 2015). Both the ESSA and section 504 of IDEA (United States Department of Education, 2004a) encourage schools to support the growing number of students with disabilities in classrooms by requiring support and training for one-to-one paraprofessionals (Azad et al., 2015). The laws do not specify the type or degree of support that should be provided for students with disabilities. As the quantity and variety of students with disabilities increases, the role and responsibilities of the one-to-one paraprofessional also increases and evolves. This makes it more complex to provide training or support that is meaningful to an individual with such diverse responsibilities.

Support Needs of One-to-One Paraprofessionals

To best support the student and classroom teacher, one-to-one paraprofessionals should be given a specific role that the one-to-one paraprofessional can provide for the student and information regarding the extent and circumstances to which the student needs support (Geary, 2016; Infante-Green, 2016). It is an important task to assign a role to one-to-one paraprofessionals. The person responsible for assigning the role varies from school to school and

varies across schools as well. Though typically the person responsible for assigning tends to be a principal or school psychologist.

Students with disabilities have a variety of needs and differences. No two students are alike, even if they may be classified with the same disability. Thus, one-to-one paraprofessionals have very different jobs depending on the students they support. One-to-one paraprofessionals have a wide range of roles for students who have multifaceted support requirements (Rutherford, 2011). This makes it difficult to have a one-size fits all approach to providing guidance for these individuals with such unique responsibilities. To be effective, guidance and support need to be as individual as the students they are supporting.

One-to-one paraprofessionals have the potential to make a large impact on student achievement. In a study of 153 paraprofessionals working in special education, almost 70% stated that they make curricular and instructional decisions without having supervision from a teacher or special educator (Giangreco, 2010; Giangreco & Broer, 2005). This is inconsistent with Every Student Succeeds Act of 2015 (ESSA) and IDEA guidelines, and it is a common issue in the field of special education. The lack of guidance or support from other educators can cause one-to-one paraprofessionals to feel unsure of their role because an educational team has not provided and discussed their job description (Doyle, 1998). These ambiguities increase role confusion and can have a negative impact on how a one-to-one paraprofessional perceives his/her role (Giangreco, 2010). If one-to-one paraprofessionals feel unsure of their role in the classroom, it is likely they may feel unsure of how to approach the task and unsure of their ability to complete the task successfully. It is common for one-to-one paraprofessionals to feel a sense of role ambiguity (Azad et al., 2015). In the situation discussed in the vignette, the one-to-

one paraprofessional was put out into the field with little support or resources which could lead to him or her to question his or her role with the student with a disability and in the classroom.

Lack of direction and confusion in a one-to-one paraprofessional can impact the students with whom they work. Researchers (Webster et al., 2010) determined that the negative impact of paraprofessional intervention was not because of the individual paraprofessional, but due to the ambiguities that can be categorized into three larger topics: (a) deployment, (b) practices, and (c) preparedness. These are all aspects that can be addressed through guidance and support that will help strengthen the role of the one-to-one paraprofessional.

Blatchford et al. (2012) defined the categories of ambiguities in deployment, practices, and preparedness. These researchers created a graphic to illustrate survey results from 40 teachers and teaching assistants in 10 different schools. The authors suggest practice, deployment, and preparedness should be addressed through guidelines. For example, information found around practice relates to issues where paraprofessionals tend to close conversations instead of opening conversations. Information in the area of deployment indicated that paraprofessionals kept students with disabilities separated from their classroom teacher and the general curriculum. Lastly, in the aspect of preparedness, Blatchford et al. (2012) found paraprofessionals have little training, lack of planning time, and lack of feedback. If guidelines were developed to clarify roles in the areas of practice, deployment, and preparedness, perhaps the effectiveness of one-to-one paraprofessionals would improve.

Since the 1990s, one-to-one paraprofessionals have expressed a need for more support and clarification in their roles (Rutherford, 2012). Researchers have identified areas that need improvement and suggestions on how to improve various aspects of one-to-one paraprofessional

instruction (Giangreco et al., 1997; Giangreco & Broer, 2005). Many times, decisions and experiences are made for one-to-one paraprofessionals in terms of training and professional development, instead of asking the individual what they need to be successful (Giangreco & Broer, 2005). What is missing is the input of the one-to-one paraprofessional. General training for one-to-one paraprofessionals does not address the specific needs of each individual. These individuals have complex support requirements just like the students they assist (Rutherford, 2012). Administrators should work closely with one-to-one paraprofessionals who work with students with the most significant needs. This system is bound to experience challenges, which sets administrators to respond reactively towards special education needs (Giangreco et al., 2012). In order to operate proactively, it is important to open the lines of communication between administrators, special educators, general education teachers, and one-to-one paraprofessionals. By sharing perspectives and feedback, administrators can create change for one-to-one paraprofessionals to help promote future success for one-to-one paraprofessionals and the students they assist.

Guidelines regarding LRE are broad and there are few state-wide guidelines specifically to support one-to-one paraprofessionals. It is time to take steps to strengthen this important method of instruction to help one-to-one paraprofessionals feel confident and supported in their role. Including one-to-one paraprofessionals in conversations and specifically asking how they need support can create consistency across many different settings and provide clarity for one-to-one paraprofessionals working with students with special needs in the inclusive setting.

Statement of the Problem

A topic of concern this study aimed to highlight is the needs of one-to-one paraprofessionals and the lack of specified guidance and support for these professionals. There are currently no formal guidelines issued by New York State Education Department to support one-to-one paraprofessionals throughout their role. There are formal documents to decide if a one-to-one paraprofessional is a need and there are documents to identify areas of support that are needed for the student (DeLorenzo, 2012), but in the public-school setting, each school district supports their one-to-one paraprofessionals differently. This creates a lack of uniformity across the position. The United States has recognized the importance and need for support and training through professional development opportunities (Darling-Hammond et al., 2009; Walker & Smith, 2015). The New York State Department of Education states that one-to-one paraprofessionals should be provided with the training and support to understand the needs of their students, effective strategies to address the student's needs, and skills necessary to implement the students' individualized education program (IEP) (Geary, 2016; Infante-Green, 2016). It is unfortunate to report that many one-to-one paraprofessionals begin their roles without training or special education experience (Moshe & Licht, 2016). If not given training, one-to-one paraprofessionals should be given some sort of guidance to be most successful at their critical and diverse jobs. Guidelines can provide one-to-one paraprofessionals with criteria for role clarification (Giangreco et al., 1997). To allow these professionals to be most effective, the specific reasons for support must be established to provide the most individualized interventions while maintaining high standards. The best way to do this is to communicate with one-to-one paraprofessionals directly about how they can be supported.

Overwhelmingly, studies (Blatchford et al., 2012; Stieg, 2019; Webster et al., 2010) have highlighted negative impacts of one-to-one paraprofessionals due to the lack of role clarification, preparation, and supervision. Typically, paraprofessionals do not receive adequate training prior to beginning a case (Walker & Smith, 2015). This can negatively impact a paraprofessional's preparedness for such a significant role. In addition, it is common that general or special education teachers are not given time to collaborate with one-to-one paraprofessionals (Freschi, 1999). This can lead to a lack of communication that can negatively impact the student and educators. With many ambiguities in this area of education, it is no surprise that one-to-one paraprofessionals reported having insufficient training and ability across skill areas (Giangreco et al., 2002; Walker & Smith, 2015).

Findings that were most surprising highlighted the ambiguities of one-to-one paraprofessional roles on student academic and social outcomes. The Deployment and Impact of Support Staff (DISS) project was a five-year study that analyzed paraprofessionals worldwide (Blatchford et al., 2012). This study found that some students with disabilities who received the most support from paraprofessionals made less progress than those who received less support. Giangreco et al. (1997) also highlighted social impacts such as increased dependence on adults and loss of personal control. These findings are not meant to place blame or discredit one-to-one paraprofessionals, but to highlight the need for further guidance and support in the areas of preparedness, deployment, and practice.

It is important to establish guidance and support for a one-to-one paraprofessional. This can be done by assigning a person or team who can advocate for these educators. Supervision of one-to-one paraprofessionals varies across school settings. One-to-one paraprofessionals can be supervised by teachers, or building supervisors such as psychologists, principals, or social

workers depending on the school and the student. Teachers work side-by-side with one-to-one paraprofessionals in the classroom, but typically are not trained to work with a one-to-one paraprofessional in the classroom (Freschi, 1999). If there is no training or preparation for teachers working with one-to-one paraprofessionals, a misunderstanding of roles and miscommunication may develop in the relationship (Glazzard, 2011). Specifically, supporting supervisors for one-to-one paraprofessionals will help to clarify the role and give the one-to-one paraprofessional a specific person to turn to for guidance, direction, and feedback. Giangreco, et al. (2003b) recommend establishing a team to support and make well-rounded, educated decisions regarding the purpose and roles of one-to-one paraprofessionals. Establishing a team can also open communication between educators and administrators involved.

A policy that would be beneficial for one-to-one paraprofessionals is the establishment of communication guidelines that can be established to address a variety of supports. Communication guidelines can also provide a formal way to deliver information on decreasing dependence, fading prompts, and the importance of proximity that can be beneficial to the educator (Giangreco et al., 1997). These types of resources aim to reduce the amount of excessive unnecessary support that can begin to negatively impact student academic performance and interfere with social interaction. Since one-to-one paraprofessionals spend the most time with these students, it is important for them to be educated on a wide variety of the most effective practices to provide a high-quality individualized education. To provide high-quality inclusion supports, one-to-one paraprofessionals should be educated in the specific needs of their individual student, best teaching practices, and have knowledge of the curriculum they are supporting as well.

This research investigated one-to-one paraprofessional perceptions of preparation, support, communication, feedback, and involvement in the planning process, to establish guidance and support for one-to-one paraprofessionals when working with students with special needs. According to Geary (2016) and Infante-Green (2016) guidelines are needed to determine if a one-to-one paraprofessional is needed for a student. Infante-Green (2016) further clarifies that prior to assignment, the type of training and support that one-to-one paraprofessional will need to understand and support the student must be considered. There are one-to-one tutoring models with proper guidelines and support that help students to be successful academically (Wasik, & Slavin, 1993). These examples provide hope that with the proper guidance and support, one-to-one paraprofessionals can be more specifically prepared for their growing roles.

Research Questions

The following research questions will guide this investigation:

RQ 1: From the perspective of one-to-one paraprofessionals, how does preparation contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 2: From the perspective of one-to-one paraprofessionals, how does support contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 3: From the perspective of one-to-one paraprofessionals, how does communication contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 4: From the perspective of one-to-one paraprofessionals, how does feedback contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 5: From the perspective of one-to-one paraprofessionals, how does planning contribute to one-to-one paraprofessionals' role in public school classrooms?

Purpose of Study

The purpose of the present study was to determine how perceptions of preparation, support, communication, feedback, and planning contribute to the overall role of one-to-one paraprofessionals. In addition to identifying specific areas where one-to-one paraprofessionals require guidance and support to assist students receiving special education services. This study intended to stimulate communication among special education teachers, administrators, one-to-one paraprofessionals, and other involved school employees to uncover areas of concern and highlight the need for guidance, support, and collaboration. One-to-one paraprofessionals have multiple responsibilities that can require guidance across various subjects. Asking the one-to-one paraprofessional for their input can address individual struggles and improve feelings of purpose and motivation. Doing so will also open lines of communication and support for all of those involved. Communication can identify specific areas of difficulty that will highlight the need and degree of support, guidance, and collaboration for one-to-ones' working in public school districts. With this knowledge, public school districts can do more to develop lines of communication between one-to-one paraprofessionals and other professionals.

Theoretical and Conceptual Framework

This research was engrained in the process of collaborative inquiry and the aspect of social betterment from Albert Bandura's Social Cognitive Theory. Collaboration and inquiry are processes that are used for people to come together to work on a common goal and gather well rounded information. This process of collaborative inquiry can improve experiences and

practices for one-to-one paraprofessionals in the public-school setting. Additionally, the

collaborative inquiry process can influence environmental and cognitive factors that can impact

learning for those involved. Bandura's Social Cognitive Theory provides a framework for

understanding how this collaborative process can positively impact one-to-one paraprofessional

learning and preparation. Collaborative inquiry is defined as "a structure in which members of a

professional learning community (PLC) come together to systematically examine their

educational practices. Teams work together to ask questions, develop theories of action,

determine action steps, and gather and analyze evidence to assess the impact of their actions"

(Donohoo, 2013, p. 2). A PLC is defined as a group of professionals coming together with a

common interest in education. PLC has been used to describe grade-level teaching team

meetings, committee meetings, and various other collaborative learning experiences (DuFour,

2004). One-to-one paraprofessionals will not be able to utilize support if they themselves have

not expressed their areas of concern. PLCs can be used to implement a learning community and

perhaps establish guidance for one-to-one paraprofessionals.

Collaborative Inquiry and Professional Learning Communities

Collaborative inquiry and professional learning communities are widely used methods of

learning and collaboration across professional settings. PLCs support collaborative inquiry in the

schools. This method of collaboration and inquiry was first used in business (Thompson et al.,

2004). The term professional learning community was selected for the specific interactions

between the three words. The term is derived from the concept of a "learning organization". This

model emphasizes a complementary relationship between working, learning, and innovation

(Watson, 2014). In the field of education, the word *organization* was replaced with *community* to

highlight the shared vision and values (Watson, 2014). PLCs in education developed in the 1980s

during a time of major reform for schools and businesses (Blanton & Perez, 2011). School and

organization improvement endeavors moved toward emphasizing culture, collegiality, and

collaboration throughout their establishments (Blanton & Perez, 2011). As a result of this shift,

PLCs became a popular method used in schools to promote culture, collegiality, and

collaboration.

The purpose for collaborative inquiry and professional learning communities is to support

teachers to become more effective for the ultimate benefit of the students (Stoll et al., 2006).

PLCs can be used for the purpose of intervention for staff and students, it is also used as a form

of professional development. For example, a PLC of all science teachers can form and discuss

how to improve student achievement in the subject area, reflect on lessons, and discuss

instructional practices. A PLC for one-to-one paraprofessionals with students with disabilities

can be established for one-to-one paraprofessionals to meet monthly. In this meeting, the one-to-

one paraprofessional can share any new observed behaviors, the special education teacher can

provide information and insight to modify the behaviors in the classroom, and the general

education teacher can share upcoming curriculum to best plan ahead for the individual child.

Collaborative inquiry through professional learning communities allows educators to be

proactive rather than reactive. In addition, this method of teaching, learning, and collaboration

allows the student to be the focus (Hord, 2009). In most professional development workshops,

teacher-centered learning is emphasized. This is where the teacher tells the learner what they

need to know and helps to make connections to this new information. PLCs and collaborative

inquiry put the student's strengths, needs, and goals and the center of their planning and

instruction.

Collaborative inquiry through PLCs is a method for people to get together and learn from one another, but researchers (Hord, 2009; Stoll et al., 2006) identify specific dimensions that should be met to be called a PLC. Most importantly, a PLC should have a shared belief, value, or vision (Hord, 2009; Stoll et al., 2006). This common belief should be emphasized continuously throughout the PLC to provide the community with purpose. In addition, a PLC should have a shared and supportive leader. This leader should equally distribute power and responsibility throughout the community members (Hord, 2009; Stoll et al., 2006). The group must have established meeting times, places, and resources to be most effective (Hord, 2009). It is crucial for the PLC to emphasize collaboration, collective responsibility, and mutual respect (Hord, 2009; Stoll et al., 2006). These aspects are critical to develop trust and learning among PLC members. Another crucial aspect to a PLC is the reflective professional inquiry aspect. PLC members should be reflective in their practices and seek positive feedback from one another (Hord, 2009; Stoll et al., 2006). The reflective aspect of PLCs allows for continuous and deeper learning each reflective cycle.

Typically, cognitive inquiry is referred to as a cyclical process. This process starts with a focus on a specific topic or problem, group members create and implement a plan, evaluate the plan and then return to focusing on a specific aspect of the evaluation to improve (Nelson & Slavit, 2008). Each time the cycle begins, the community then has a more specific and deeper goal to focus on. This keeps the PLC moving forward and deeply analyzing situations. Each cycle of inquiry should also include dialogical sharing, acting, and reflecting (DeLuca et al., 2015). It is crucial that leaders of these PLCs, establish shared meeting times, emphasize goals, and designate roles among a PLC. The communities are great methods to learn, collaborate, and

improve, but there are many aspects that contribute to a successful PLC that need to be carefully

monitored.

The intention of using this process is to get one-to-one paraprofessionals the support that

is specific to their individual needs. In addition, this process allows for the input of one-to-one

paraprofessionals to be valued. The collaborative inquiry process has benefits for both educators

participating and the students of those educators (Cantalini-Williams et al., 2015). The

collaborative inquiry process allows those involved to be at the center of change and gives the

opportunity to reflect and improve on current practices in a meaningful and specific manner

(Butler & Schnellert, 2012). This process provides designated time for those working with a

student who requires one-to-one services to come together. This time brings involved educators

together to share experiences and perspective that will allow for more informed decision making.

By having one-to-one paraprofessionals involved in this process, reduces the gap between

information, recommendations, and direct practice (Cantalini-Williams et al., 2015). One-to-one

paraprofessionals can share their concerns and received direct feedback that can be put into

practice immediately.

The purpose of collaborative inquiry through professional learning communities is to

improve teacher practices to better support students. Teachers who participate in a PLC can learn

better ways of teaching, learn about a variety of tools and methods for teaching, develop greater

awareness of their practices, and can develop effective teaching practices (DeLuca et al., 2015).

PLCs are also great places to analyze student information. With the specific attention to detail

highlighted in PLCs, teachers and one-to-one paraprofessionals can make more data-informed

decisions (Thompson et al., 2004). Blanton and Perez (2011) explain, "PLCs have the potential

to serve as a catalyst for integrating teachers who, because of their small numbers in schools,

might become marginalized and isolated." (p. 11). Typically, since one-to-one paraprofessionals

make up such a small portion of a school building, they are overlooked when important decisions

are made regarding the student they support. Including one-to-one paraprofessionals in these

important communities will benefit all who are involved. The one-to-one paraprofessional will

be able to share their observations and have access to more support, inclusion allows the special

educator to have a more well-rounded view of the student to make data informed decisions, and

it allows for the student to fully be at the center of all decisions made across settings. If one-to-

one paraprofessionals were included in professional learning communities, they would be able to

have a wider view of the student, and more resources to better support the child academically

and emotionally. A PLC can also develop guidance and protocols for one-to-one

paraprofessionals. One-to-one paraprofessionals would greatly benefit from a PLC dedicated to

clarifying and supporting their various roles with special education students.

Educators carry out collaborative inquiry through PLCs but their purpose is to ultimately

benefit student learning. Student learning and skills can be enhanced when educators participate

in the collaborative inquiry process (Cantalini-Williams et al., 2015). By including one-to-one

paraprofessionals as part of the process, the continuous support and information received can be

directly translated to the student receiving one-to-one services. When teachers work in this type

of collaborative group, their students can demonstrate less reliance on teacher support, increased

time spent on independent work, and more ownership in reviewing their own work (Cantalini-

Williams et al., 2015). In addition, PLCs encourage teachers to emphasize higher quality

thinking, deep conversations, and making connections to the environment (Stoll et al., 2006).

These are the skills and behaviors encouraged for all students, but especially students requiring one-to-one support.

Collaborative inquiry and professional learning communities were included as a framework for effective communication to better support the role of one-to-one paraprofessionals. PLCs serve as a model for effective communication to have the needs and concerns of one-to-one paraprofessionals heard and addressed. Collaborative inquiry and professional learning communities can be used to cover a wide range of topics, but they allow participants to specifically address a problem. By using a collaborative inquiry lens and professional learning communities, one-to-one paraprofessionals can receive the guidance and support they need to effectively carry out their roles with confidence and effectiveness. In addition to these perspectives, Albert Bandura's Social Cognitive Theory (SCT) was also be used to frame the present study. Below is information related to Albert Bandura's Social Cognitive Theory (SCT).

Albert Bandura and Social Cognitive Theory

Albert Bandura's Social Cognitive Theory (SCT) is based on "an agentic conception of human development, adaption, and change. To be an agent is to influence the course of events by one's actions" (Bandura, 2017). This theory explains how humans create and are influenced by their environment. According to the social cognitive theory, humans specifically use observational learning, modeling, and perceived self-efficacy to produce certain behaviors (Vinney, 2019). The social cognitive theory will be used as a framework to analyze how one-to-one paraprofessionals learn to teach and improve their instruction. Additionally, this lens can be used to provide more specific support and guidelines. This theory can also help to understand

how one-to-one paraprofessionals best take in information to learn more and better their

performance. Bandura's social cognitive theory explains that people have control over their own

thoughts, motivation, and actions, therefore they have the power to change themselves and their

situations through action (Bandura, 1989). This change can be for the better with proper support

in their role.

Albert Bandura is an American psychologist and founder of the Social Cognitive Theory,

formerly known as the Social Learning Theory (SLT). Bandura, born in Canada in 1925, was the

youngest of six children (Nolen, 2020). He received his bachelor's degree in psychology at the

University of British Columbia, and his master's degree and doctoral degree in clinical

psychology were both from the University of Iowa. Immediately after graduating, Bandura began

working as a professor at Stanford University. He later became the chairman of the psychology

department, where he later became professor emeritus in 2010 (Nolen, 2020). Bandura's work is

focused on social learning, cognition, and self-efficacy.

He is most known for his bobo doll experiment in 1961 (Bandura et al., 1961). The bobo

doll experiment proved children imitate observed behaviors from adults. In this experiment,

adults were instructed to either ignore or act aggressively, both physically and verbally, toward

an inflatable clown doll called a bobo doll. While the adults did this, pre-school aged children

watched the aggression take place (Bandura et al., 1961). Children were directed into another

playroom, where they were able to play freely. During this time, their playtime was cut short to

provoke frustration and the children were brought into another playroom where there was a

smaller version of the bobo doll in the first room. Children that observed aggression, both

physically and verbally, demonstrated aggressive behaviors towards the bobo doll and in general

(Bandura et al., 1961). Results were also analyzed based on gender. Male children were more

likely to display aggressive behaviors, especially if they had a male aggressive model (Bandura

et al., 1961). In a following study, children observed aggressive models through a film and a

cartoon representation (Bandura et al., 1963). When exposed to the same conditions, conclusions

were the same. Children who observed the aggression were more likely to display aggressive

behaviors, and boys were more likely to imitate the aggressive behaviors than girls (Bandura et

al., 1963). These studies began Bandura's more in-depth research on observational learning and

modeling.

Bandura advanced his ideas on observational learning and modeling into the Social

Learning Theory in 1977 (Bandura, 1977). SLT combines aspects of modeling, respondent

conditioning, operant conditioning, and observational learning as principals to understanding

human behavior (Thyer & Myers, 1998). Similarly, both social learning and observational

learning involve attention, retention, memory, motivation, and reproduction (Bandura, 1977).

The social learning process begins with an anticipated stimulus that will provide reinforcement

(Bandura, 1977).

Looking at Bandura's SLT in relation to one-to-one paraprofessionals, this anticipated

stimulus could be watching the classroom teacher use a corrective behavior management

technique while working with a student. Next, in the process is attention. The one-to-one

paraprofessional gives their attention to the situation. Then, the stimulus and modeling of the

stimulus occurs (Bandura, 1977). In the example involving the one-to-one paraprofessional, the

stimulus would be the corrective behavior management technique being modeled by the

classroom teacher. Now the one-to-one paraprofessional experiences symbolic coding, cognitive

organization, and rehearsal or the stimulus, before attempting to rehearse (Bandura, 1977). The one-to-one paraprofessional symbolically codes this interaction in their mind, organizes this information in their brains, and mentally rehearse the stimulus to better understand how to perform the stimulus independently. Once this cerebral process takes place, then the one-to-one paraprofessional can attempt to practice this corrective behavior management technique autonomously. One-to-one paraprofessionals can continuously learn through observing modeled behavior demonstrated by the classroom teacher. For example, if a one-to-one paraprofessional observes the classroom teacher providing positive feedback to reduce a distracting behavior, over time the one-to-one paraprofessional will become more familiar with this interaction and may feel comfortable to imitate the interaction with the student. Not only can a one-to-one paraprofessional learn a lot through observation and modeling, but one-to-one paraprofessionals can also experience increased motivation and increased perceived self-efficacy from observing successful interactions and outcomes over time.

In 1986, Bandura renamed his theory, the Social Cognitive Theory (SCT) to emphasize the cognitive aspects of the theory. Cognitive aspects such as self-regulation and self-reflection highlight human motivation and action. For example, if the outcome of the behavior is viewed positively, the behavior is more likely to be reproduced (Bandura, 1986). In his later work, Bandura (1986) emphasizes the interplay among cognition, behavior, and the environment. Meaning, not all modeled and observed behavior is reproduced, humans make causal contribution to their own action and motivation based on personal and environmental factors (Bandura 1986; 1989). There is more to learning than just watching, there needs to be a degree of relevance and interest as well.

An and Meaney (2015) conducted research in the field of education and used SCT as a

lens to view their results. SCT connects to special education ~~well~~ because SCT involves the

interaction between personal factors, behaviors, and the surrounding environment. The

interaction between these three factors is called triadic reciprocity (An & Meaney, 2015).

Interactions between a teacher's knowledge of a disability and their motivation to learn about

their student (personal factors) and the child's needs and learning goals (environment) can

determine the teacher's behaviors in inclusive practices (An & Meaney, 2015). By focusing on

the knowledge and motivation of a one-to-one paraprofessional, their behaviors and inclusive

practices toward their one-to-one student can be improved. The SCT provides a theoretical

framework to analyzing how one-to-one paraprofessionals learn to perform their jobs. This lens

could also help to design more effective guidance and supports.

Collaborative inquiry, PLCs, and Bandura's SCT are often associated with the education

field. CI and PLCs are constructive approaches toward positive school reform. CI and PLCs

emphasize shared visions, shared leadership, and collective learning (Hardin, 2010). These types

of approaches involve a combination of personal and environmental factors to influence

behavioral factors (Hardin, 2010). Social cognitive theory provides a framework for

understanding how environmental and cognitive factors influence human learning. By analyzing

these interactions, SCT provides a valuable theoretical framework to better understand the needs

of one-to-one paraprofessionals. Research questions of this study aimed to highlight

environmental factors, behavioral factors, and personal factors that can contribute to the success

of one-to-one paraprofessionals. Using a SCT framework, interactions among personal,

behavioral, and environmental factors, including aspects of CI and PLCs, can be further

understood (Figure 1).

Figure 1

Conceptual framework based on Bandura's Social Cognitive Theory

Personal Factors

- Education qualification
- Knowledge in special education
- Participation in PLC
- Motivation
- Self-efficacy

Environmental Factors

- Experience as a one-to-one paraprofessional
- Collaboration between support staff / PLC
- Professional Development
- Training

Behavioral Factors

- Practice of supporting students with disabilities in the classroom
- Positive interactions with students
- Positive interactions with coworkers

Note. Bandura's Social Cognitive Theory provides a framework to view the interactions between behavioral factors, environmental factors, and personal factors that influence one-to-one paraprofessional preparation, support, communication, and input.

Environmental factors such as experience as a one-to-one paraprofessional, collaboration between support staff, for example a PLC, professional development, and training opportunities, have direct effects on personal factors and can also influence behavioral factors. Personal factors for one-to-one paraprofessionals may include educational qualifications, knowledge of special education, participation in PLCs, and motivation. All personal factors directly affect behavioral factors but also can influence the environment at times. Lastly, behavioral factors include the behavior during the practice of supporting students with disabilities in the classroom, positive interactions with students, and positive interactions with coworkers, and can directly affect personal factors and can indirectly affect the surrounding environmental factors. For example, if there are an abundance of professional development opportunities for one-to-one paraprofessionals, they will have more knowledge in the area of special education and will be able to utilize more evidence-based practices. Utilizing more evidence-based practices can impact the experiences the one-to-one paraprofessionals have in the classroom.

Summary of Chapter

One-to-one paraprofessionals spend the most time with the students they support. In addition, one-to-one paraprofessionals provide various types of academic, behavioral, and medical support. With such a large responsibility, these professionals would benefit from a variety of professional development courses or trainings, but there are a lack of guidelines and supports for one-to-one paraprofessionals (Azad et al., 2015). Lack of guidance can lead to role confusion (Giangreco, 2010). The purpose of the present study was to identify specific areas where one-to-one paraprofessionals require guidance and support to assist students in public schools on Long Island. This research investigated how one-to-one paraprofessional perceptions

of preparation, support, communication, feedback, and involvement in the planning process contribute to their overall role. How are these educators supported? How are their needs met? How is their input valued? With this understanding, school level administrators and teachers can provide the guidance and support one-to-one paraprofessionals need to be most effective at their jobs. Strengthening the effectiveness of one-to-one paraprofessionals can lead to positive academic, behavioral, and social outcomes for the special education students that require the most specific and intensive support.

In this chapter, some of the concerns facing one-to-one paraprofessionals working in public schools were highlighted. Areas of training and communication need to be strengthened in order to best support one-to-one paraprofessionals working with students with special needs. The following chapter further examined literature concerning one-to-one paraprofessionals. The various roles of one-to-one paraprofessionals, description of the history of one-to-one paraprofessionals, and research behind the guidance and support of one-to-one paraprofessionals is also included. Overall, the following chapter highlighted major themes and issues one-to-one paraprofessionals face to identify areas needing guidance and support.

Definitions of Terms

- **Collaborative Inquiry**: "A structure in which members of a professional learning community (PLC) come together to systematically examine their educational practices. Teams work together to ask questions, develop theories of action, determine action steps, and gather and analyze evidence to assess the impact of their actions" (Donohoo, 2013, p. 2).

- **Least Restrictive Environment (LRE):** LRE is a provision of the Individuals with

    Disabilities Education Improvement Act (IDEA). According to federal regulations:

    > 1. that to the maximum extent appropriate, children with disabilities, including

    > children in public or private institutions or other care facilities, are educated with

    > children who are not disabled: and

    > 2. that special classes, separate schooling or other removal of children with

    > disabilities from the regular educational environment occurs only when the nature

    > or severity of the handicap is such that education in regular classes with the use of

    > supplementary aids and services cannot be achieved satisfactorily (34 C.F.R. Sec.

    > 300.550).

- **One-to-One**: One-to-one assistance is a method of inclusion that provides students with

    disabilities a one-to-one paraprofessional. According to the New York State Education

    Department, one-to-one assistance would be considered a "related service." Related

    services are defined as "developmental, corrective, and other supportive services as are

    required to assist a student with a disability" (The New York State Education

    Department, 2016). The goal of one-to-one assistance is to provide additional support to

    the student in the general education, inclusion, or self-contained classrooms.. One-to-one

    paraprofessionals can even be used in field work experiences, such as field trips and after

    school activities, to ensure students with disabilities are included in a variety of settings

    (Hendricks et al., 2017).

- **Paraprofessional**: "those whose positions are either instructive in nature who deliver

    other direct services to students and/or their parents; and who work under the supervision

    of teachers or other professional staff who have the ultimate responsibility of the design,

implementation, and evaluation of instructional programs and students' progress."

(Doyle, 1998, p. 7).

- **Professional Learning Community (PLC):** A professional learning community is
  defined as a group of professionals coming together with a common interest in education.
  This term has been used to describe grade-level teaching team meetings, committee
  meetings, and so on (DuFour, 2004).

- **Role Ambiguity**: According to the Encyclopedia of Educational Leadership and
  Administration, role ambiguity "occurs when people are unclear or uncertain about their
  expectations within a certain role, typically their role in the job or workplace. Role
  ambiguity arises when the definition of the person's job is vague or ill defined"
  (Edmonson, 2006).

- **Social Cognitive Theory**: A theory by Albert Bandura that is based on "an agentic
  conception of human development, adaption, and change. To be an agent is to influence
  the course of events by one's actions" (Bandura, 2017).

- **Support Staff**: For the purpose of this study, support staff would be classified as any
  school employee who would be included in a paraprofessional support team. Members ca
  include general and special educators, administrators, such as assistant principals or
  principals, and other service providers such as a psychologist or speech pathologist, that
  can help support the various aspects to a child (Giangreco et al., 2003b).

CHAPTER II

LITERATURE REVIEW

The purpose of the present study was to determine how perceptions of preparation, support, communication, feedback, and planning contribute to the overall role of one-to-one paraprofessionals. In addition to identifying specific areas where one-to-one paraprofessionals require guidance and support to assist students receiving special education services. The review was conducted in the order as follows. The review began with examining the history and laws involved with inclusion and one-to-one paraprofessionals in education. It is important to analyze the evolution of law to shine light on preparation for the one-to-one paraprofessional's role. The second section further analyzed the various roles and responsibilities of one-to-one paraprofessionals across public school settings. Next, the requirements to support one-to-one paraprofessionals followed. This section included information about guidelines, implementation science, and training. The fourth section highlighted the importance of communication and input of one-to-one paraprofessionals in addressing their needs and concerns. SCT provided a framework and rationale for the importance of communication and inclusivity for the betterment of one-to-one paraprofessionals. The fifth section reviewed literature that explores how one-to-one paraprofessionals receive feedback, professional learning communities, and collaborative inquiry. Lastly, the sixth section summarized the present state of knowledge in the field, highlight any gaps in the research, and address how this study will speak to these missing areas.

Laws Regarding Inclusion and One-to-One Paraprofessionals in Education

Evolution of Special Education Federal Law

A student with an Individualized Education Plan (IEP) may require a one-to-one

paraprofessional in order to be taught in the least restrictive environment (LRE). LRE is a term

that comes from the United States law, Individuals with Disabilities Education Act (IDEA) (20

U.S.C. §§ 1400–1482), a law that changed education for students with disabilities forever. The

law was first enacted as the Education for All Handicapped Children Act in 1975. This act first

became effective in 1978 and its name was changed in 1990 to IDEA. It requires all students

with disabilities to receive a "free and appropriate public education" (FAPE) "regardless of the

severity of their disabilities" (20 U.S.C. § 1412(a)(3)(A)). In addition, IDEA requires that

students with disabilities be taught in the LRE. These requirements are met by offering a

continuum of placement options to best meet the needs of the individual student. These

placements can include a general education classroom, an integrated co-taught (ICT) classroom,

a self-contained special education classroom, a specialized school, home instruction, etc. (United

States Department of Education, 2004a). In addition, varied supports, such as the use of a one-to-

one paraprofessional, can be put into place in each setting to ensure students are educated in an

appropriate and least restrictive environment.

The use of a one-to-one paraprofessional can allow for children with disabilities to be

appropriately educated alongside peers who are not disabled. For example, prior to this law, a

student who demonstrated disruptive behaviors would more likely be educated in a separate

setting. With the enactment of IDEA, students who demonstrate moderate behaviors can be

educated in a classroom with consistent support from a one-to-one paraprofessional. This

establishment was intended to change special education classroom environments in public and private school contexts. The terms "appropriate" and "least restrictive" emphasize the individualized aspects of special education.

IDEA also created the Committee of Special Education (CSE). The CSE is a group of people that are knowledgeable about the student and about special education, that come together to make educational decisions about a child with disabilities (34 C.F.R. §§ 300.321, 300.322). It is important for individuals most knowledgeable about the child to meet and develop an educational plan. Some individuals are mandated, such as parents, while others are optional. The law states that members of the committee may include:

- the parent

- one regular education teacher

- one special education teacher

- a school psychologist

- a school district representative knowledgeable of resources of the school district

- an individual who can interpret the instructional implications of evaluation results

- a school physician

- an additional parent member

- other persons having knowledge or special expertise as the school district or the parents shall designate

- if appropriate, the student (Educ. Law § 4402(1)(b)(1); Educ. Law § 4402(1)(b)(1)(a); Educ. Law § 4402(1)(b)(1)(b)).

One-to-one paraprofessionals can be considered as another person having knowledge or special expertise about the child and how they function in the academic setting. The inclusion of a one-to-one paraprofessional in a CSE varies based on school and individual cases.

In 2002, No Child Left Behind (NCLB) was enacted. This law highlighted achievement gaps among populations and set high standards for all students. Specifically, NCLB placed a high emphasis on student academic achievement and accountability on staff and districts to assure high quality education for all students regardless of their disability or background (United States Department of Education, 2015). Under NCLB, schools were required to meet a yearly progress goal that were not realistic (Education Post, 2020). There were also penalties for districts that did not meet established yearly progress goals. The federal government established guidelines for state departments of education. There was little flexibility for states to establish their own goals under the NCLB law.

Under this law, there was a strong emphasis on highly qualified teachers and strong quality of education, highlighting teacher education and teacher preparation programs. Under NCLB teachers had to be "highly qualified" which means they had to have a bachelor's degree, full state certification or licensure, and to prove that they know the subject they teach, whether that be through graduate credits in the subject area, an experience rubric, or certification assessments (United Stated Department of Education, 2004b). In addition, states were required to determine the number of students taught by highly qualified educators, specifically minority or disadvantaged students. States are also required to establish goals and plans to ensure that teachers are highly qualified and must publicly report plans and progress toward reaching teacher quality goals (United Stated Department of Education, 2004b). Extra scrutiny on teacher

preparation brought additional requirements for teaching assistants, paraprofessionals, and other educational support staff.

Regarding one-to-one paraprofessionals, a non-regulatory policy guidance document was released specifically for Title I paraprofessional. This document further explained section 1119 of Title I as amended by the NCLB Act. The document reiterates paraprofessionals are not to introduce any new topics or provide planned direct instruction, their role is strictly supportive United States Department of Education, 2004c). In addition, NCLB required that all paraprofessionals working in the United States needed to have a secondary school diploma or its equivalent, an associate degree, or two years of course work from an institution of higher education. (United States Department of Education, 2004c). If the paraprofessional did not have these qualifications, they needed to pass exams to demonstrate knowledge in their chosen content (United States Department of Education, 2004c).

The qualifications for becoming a paraprofessional who works with special education students is different from other educational support staff. A paraprofessional that provides direction instructional support is required to meet the specific requirements mentioned above (United States Department of Education, 2004c). On the other hand, if the paraprofessional does not provide instructional support and only provides personal care assistance, then the professional does not have to meet the set requirements prior to working in the field. Not only did NCLB bring attention to high quality teaching, but it required high quality instructional supports as well.

NCLB was replaced with Elementary and Secondary Education Act (ESSA) in 2015 under President Barack Obama. ESSA reauthorized the Elementary and Secondary Education

Act of 1965 (ESEA). With its reauthorization, the law now gave some flexibility back to the state

governments (Education Post, 2020). ESSA provided an adaptable framework for states to set

their own goals regarding student achievement. In addition, instead of solely focusing on student

academic achievement, states must use four academic factors when evaluating a schools

accountability measure (Education Post, 2020). Most specifically related to paraprofessionals,

ESSA removed the requirements to hire highly qualified teachers. State and local educational

agencies needed to report and ensure that paraprofessionals meet certain qualifications and

perform certain duties starting with the 2016-2017 school year (United States Department of

Education, 2016). Overall, ESSA provides states more authority to hold their schools

accountable for the preparation and quality of education.

Lastly, IDEA was reauthorized as the Individuals with Disabilities Education

Improvements Act (IDEIA) enacted in 2004. This reauthorization brought the law into alignment

with NCLB and ESSA. States were now required to establish academic goals for students that

align with the goals of their peers without disabilities (Renner, 2018). IDEIA also required that a

student's IEP be re-evaluated each year. The inclusion of the one-to-one paraprofessional in this

re-evaluative decision-making process is unclear by law and therefore varies across states and

school districts. IDEIA further specifies requirements to best support students with disabilities,

though there are still few pieces of written federal law that directly address one-to-one

paraprofessionals.

New York State Regulation Regarding Preparation of One-to-One Paraprofessionals

The major body of New York State law that directly addresses paraprofessionals is Part

200 of the Regulations of the Commissioner of Education, updated October of 2016 (The New

York State Department of Education, 2016). New York State regulation identifies the difference

between a teacher's aide and teacher's assistant. Section 80 – 5.6 of the Commissioner's

Regulations of Education defines each term and highlights the differences between the two. The

main difference between the two roles is that teaching assistants are required to pass the

Assessment of Teaching Assistant Skills (ATAS) to attain state certification, where teacher aides

do not require certification (New York State United Teachers, 2012). Throughout the document,

the terms "one-to-one," "teacher aide," "teacher assistant," "paraeducator," and

"paraprofessional" refer to the professional being represented throughout this paper. The term

paraprofessional is being utilized because that is how these professionals are commonly referred

to in New York schools.

In 2004, there was a specific amendment released by Edward Placke, the Assistant

Commissioner for Special Education at the time. This amendment highlights the specific

responsibilities of school districts regarding the care and education of students with disabilities in

Part 200 of the Regulations of the Commissioner of Education. The role of the one-to-one

paraprofessional is examined when discussing special considerations of the Committee of

Special Education (CSE). Part 200 lists considerations that the CSE must make before

recommending a one-to-one paraprofessional for a specific student (The New York State

Department of Education, 2016). The considerations are as follows:

- The management needs of the student that would require a significant degree of

  individualized attention and intervention

- The skills and goals the student would need to achieve that will reduce or eliminate the

  need for the one-to-one aide

- The specific support (e.g., assistance with personal hygiene or behaviors that impede learning) that the one-to-one aide would provide for the student

- Other supports, accommodations and/or services that could support the student to meet these needs (e.g., behavioral intervention plan; environmental accommodations or modifications; instructional materials in alternate formats; assistive technology devices; peer-to-peer supports)

- The extent (e.g., portions of the school day) or circumstances (e.g., for transitions from class to class) the student would need the assistance of a one-to-one aide

- Staff ratios in the setting where the student will attend school

- The extent to which assignment of a one-to-one aide might enable the student to be educated with nondisabled students and, to the maximum extent appropriate, in the least restrictive environment

- Any potential harmful effect on the student or on the quality of services that he or she needs that might result from the assignment of a one-to-one aide

- The training and support that shall be provided to the one-to-one aide to help the one-to-one aide understand the student's disability-related needs, learn effective strategies for addressing the student's needs, and acquire the necessary skills to support 53 200.4 the implementation of the student's individualized education program (p. 52-53)

The specific section highlights critical aspects to review prior to assigning a one-to-one paraprofessional to a student with individualized needs. It is important to point out that these requirements are directed toward school district leaders to help prepare specific individuals for such a crucial responsibility. Further, in 2012, James P. DeLorenzo wrote a special education field advisory where he defined the roles and responsibilities of one-to-one paraprofessionals and

considerations for determining if a student needs a one-to-one paraprofessional. The document

acknowledges that…

> A recommendation for an individual aide is a significant programmatic decision and one
>
> that should only be made after a comprehensive discussion of other options considered
>
> and clear documentation of as to why those options are not appropriate. While, some
>
> students may temporarily need the support of a one-to-one aide to receive a free
>
> appropriate public education, for other students, the assignment of a one-to-one aide may
>
> be unnecessarily and inappropriately restrictive" (p.1).

Additionally, the document further explains the additional planning that must be put into place

once it is determined the child is in need of a one-to-one paraprofessional. Once it is

recommended by the CSE that the student require a one-to-one paraprofessional, specific

conditions and goals, including time-limit recommendations, should be established to fade the

use of the one-to-one paraprofessional (DeLorenzo, 2012). It is not only important that these

requirements are established, but it is just as imperative to ensure that these conditions and goals

are communicated to the one-to-one paraprofessional.

Giangreco et al. (1999) further researched the process of determining whether

paraprofessional support is warranted and how this process is perceived. Their research

highlights the lack of models or guidance in professional literature surrounding one-to-one

paraprofessional planning (Giangreco et al., 1999). Giangreco et al. (1999) conducted an

informal review of a small number of school districts in Essex Junction, Vermont. They found

that a majority of the time, the process of determining whether a student requires a one-to-one

was developed locally and out of necessity (Giangreco et al., 1999). Their research found that

typically two broad categories were emphasized during the determination process: (1) the category of the disability label and (2) the individualized characteristics of the student (Giangreco et al., 1999). Some schools plan for their one-to-one paraprofessionals based on the amount of time the student requires support, while other determination models are driven by perceived student deficits (Giangreco et al., 1999). These findings highlight the lack of uniformity among one-to-one paraprofessional planning models between schools of a similar area. If planning models are different between schools close in area, it is clear that one-to-one paraprofessional planning models are vastly different among schools across New York State. The lack of professional literature and clarity regarding one-to-one paraprofessional planning increases the risk of conflict and error during decision-making processes (Giangreco et al., 1999). It is important to highlight this fact to emphasize the gaps surrounding the planning and preparation for a one-to-one paraprofessional.

There are a significant number of laws, at both the federal and state level, that address the area of special education, but few laws specifically discuss one-to-one paraprofessionals. The role of a one-to-one paraprofessional requires more attention and clarity in order to strengthen supports provided by these individuals. When looking at the overall requirements for one-to-one paraprofessionals, there are many gray areas. For example, according to fact sheet number 12-20 from the New York State United Teachers (NYSUT) federation

> The Professional Development Plan (PDP) as defined in Part 100. 2(dd) of Commissioner's Regulations requires that each school district and BOCES develop a professional development plan that ensures that "holders of Level III teaching assistant's certificates… are provided the opportunity to participate in the professional development program of the district or BOCES" (p. 4).

The document specifically states the requirements for one-to-one paraprofessionals who

hold a level three certification, but do not specifically require professional development for one-

to-one paraprofessionals who hold level one or two certifications (New York State United

Teachers Federation, 2012). This is an interesting gap in requirements. One would assume that

the most training would be required when first beginning a role, rather than two years into the

position. There are other gray areas regarding one-to-one paraprofessionals, such as, who is

responsible for providing training and preparation to these individuals, are teachers trained to

support one-to-one paraprofessionals when they are assigned, who reviews the performance of a

one-to-one paraprofessional, when/how are one-to-one paraprofessionals informed about the

student they are assigned to and the phasing out plan? Further research is warranted to find out

what is actually happening in our New York schools surrounding the deployment, preparedness,

and practices of one-to-one paraprofessionals.

Roles and Responsibilities of One-to-One Paraprofessionals in Public School Settings

Roles and responsibilities of one-to-one paraprofessionals vary not only from school to

school, but also from classroom to classroom. Giangreco, et al. (2001b) conducted a literature

review of 43 works published from 1991 to early 2000s to examine gaps in the literature and

review major findings (2001b). During their study, researchers compiled a list of roles and

responsibilities for one-to-one paraprofessionals.

"Some of these roles include:

(a) providing instruction in academic subjects; (b) teaching functional life skills, (c)

teaching vocational skills at community-based work sites, (d) collecting and managing

data, (e) supporting students who exhibit challenging behaviors, (f) facilitating

interactions with peers who do not have disabilities, (g) providing personal care (e.g.,

feeding, bathroom assistance), and (h) engaging in clerical tasks (Boomer, 1994; Doyle,

1997; French 1999a, 1999b; Hammeken, 1996; Rogan & Held, 1999)" (Giangreco et al.,

2001b, p. 53).

Researchers pointed out that over half of the studies that were analyzed where focused on the

roles and responsibilities of paraprofessionals (Giangreco et al., 2001b). This is an important fact

to note because it demonstrates the wide variety of tasks paraprofessionals can be responsible for

and the amount of concern and research done regarding this topic. Questions about what roles

and responsibilities of one-to-one paraprofessionals should be in comparison to what the roles

and responsibilities of one-to-one paraprofessionals actually are in the classroom is a topic that is

often examined.

In general, paraprofessionals can be assigned to assist students to complete directions

given by their teacher, lead small group lessons, provide supports for all students, and adapt

lessons under teacher guidance to fit the needs of the individual student (McVay, 1998). Patti

McVay is a professor at Portland State University who is also the director of the Outreach Center

for Inclusive Education in Portland Oregon. The center supports over 40 educational teams in

Oregon, Washington, California, Kansas, Florida, and Massachusetts (McVay, 1998). McVay

analyzed her clientele to suggest practices to strengthen the teacher-paraprofessional

relationships and minimize behaviors that can lead to overreliance on the one-to-one

paraprofessional (McVay, 1998). It is extremely important for one-to-one paraprofessionals to

work directly with the lead teacher in the classroom to have an understanding of their role in the

classroom and with their student.

A one-to-one paraprofessional spends the most time with a student across the school day and can provide the most direct and individualized instruction regardless of the setting. They provide a variety of supports and services for the students who need them. Cameron et al. (2012) categorized types of interactions between one-to-one paraprofessionals and their students into: (a) academic interactions, (b) functional interactions, (c) behavioral interactions, (d) social interactions, and (e) procedural interactions. Cameron et al. (2012) studied interactions between general education teachers, special education teachers, and paraprofessionals with 13 students with mild disabilities, 13 students with severe disabilities, and 13 students without disabilities in the United States. Academic interactions took place when the one-to-one paraprofessional referred directly to lesson content. Functional interactions were more focused on safety, self-care, and independent or community living. For example, a functional interaction in the classroom may sound like "Do you need help tying your shoe?" and academic interaction may sound like "Can you tell me what two times four is"? Behavioral interactions focused on specific student behaviors such as praising a student for raising their hand. Social interactions were social and communication skills. These skills included prompting social conversations, inviting students to express their needs and wants, and emphasizing the use of manners in interactions. Lastly, procedural interactions related to routine activities and classroom management (Cameron et al., 2012). In the classroom, procedural interactions were typically directions for activities, such as "Take out your textbook and turn to page twelve." One-to-one paraprofessionals are responsible for all of these various types of interactions but will typically use only what the student requires and what is discussed with the classroom teacher or education team. The patterns of interaction between one-to-one paraprofessionals and their assigned students vary based on the severity of the student's individualized needs (Cameron et al., 2012). One-to-one

paraprofessionals have vast job descriptions. They are responsible for assisting students in the classroom for many different reasons to varying degrees.

To encourage independence and growth, the degree of assistance given by a one-to-one paraprofessional must fluctuate based on the student's individual needs in that moment. The amount of support provided by the one-to-one paraprofessional differs depending on the level of independence the student demonstrates (Hendricks et al., 2017). For example, for more severe situations a one-to-one paraprofessional can be seen directly next to the child either interpreting sign language or monitoring severe student behavior. Severe behaviors can include self-injurious behaviors or flight attempts. With a child who may be more independent or have less severe needs, the one-to-one paraprofessionals may be positioned further away from the student, ready to provide support when needed. Based on the student's level of independence, a one-to-one paraprofessional may only be needed in certain settings. Hendricks et al. (2017) conducted a self-reflective case study that examined the use of one-to-one paraprofessionals on a geoscience field trip. One-to-one paraprofessionals accommodated students with physical disabilities (e.g. deaf, low vision) during the field trip experience. In this case, students did not need the content of material modified, but the students required more physical supports. After analyzing the interactions on the trip, the findings suggested the most effective one-to-one paraprofessionals maintained awareness of spatial placement, communication, flexibility, and varying levels of student self-advocacy (Hendricks et al, 2017). In addition, effective one-to-one paraprofessionals accelerate positive perceptions of their assigned student. These results indicate that not only are one-to-one paraprofessionals responsible for various tasks and topics academically, but they can also be positive supports in certain social aspects as well.

What exactly does a one-to-one paraprofessional do in a classroom? A one-to-one paraprofessional role can be both instructional and supportive (Azad et al., 2015). In an instructional role, a one-to-one paraprofessional may work with the student directly after the classroom teacher completes a lesson to reinforce the key points of the presented lesson. In a supportive role, one-to-one paraprofessionals can also aide with social interactions for students. They can guide conversations, prompt responses, and support with almost mastered tasks and skills. One-to-one paraprofessionals can enforce behavioral intervention plans, provide positive academic interventions, and support social situations as long as they are under the direct supervision of a certified teacher (Azad et al., 2015). There are various ways that a one-to-one paraprofessional can provide academic support. For example, a one-to-one paraprofessional can modify classwork or homework given by the classroom teacher if written in a students individualized education plan (IEP). The work must be modified based on the student's needs, whether that be limiting the number of questions or emphasizing the main points of the lesson. This is a more intensive support that would require knowledge of the student's academic ability and cooperation with the classroom teacher. Azad et al. (2015) studied how one-to-one paraprofessionals spent their time in the classroom by conducting direct observations in 46 classrooms with students with autism. In their numerous roles, one-to-one paraprofessionals also created close social-emotional relationships with their students and taught to the whole child.

The type of support given can also be reflective of the type of classroom the student receiving one-to-one support services is placed in. The various mentioned supports can take place in a variety of classrooms such as a general education classroom, an ICT classroom, or a self-contained special education classroom. It is important to note that based on the classroom a student is in, supports from a one-to-one paraprofessional may look different. More specifically,

students who are placed in a self-contained special education classroom typically have more

severe needs than their other peers receiving special education services in an ICT or general

education classroom setting. Östlund et al. (2021) surveyed 60 paraprofessionals and interviewed

five paraprofessionals working in self-contained classrooms for students with intellectual

disabilities in Sweden. Survey responses highlighted the complexities of working with students

with a variety of needs such as educational needs, personal care giving responsibilities, and peer-

to-peer relational skills in addition to the lack of support and professional development in these

areas (Östlund et al., 2021). A wider variety and more intensive supports are typically required in

a self-contained special education classroom. Paraprofessionals shared they had a cooperative

relationship with the special education teacher but receive few opportunities to co-plan, co-teach,

or co-assess.

In sum, studies (Östlund et al. 2021; Azad et al., 2015; Hendricks et al, 2017; Cameron et

al., 2012; McVay, 1998) have examined support patterns of one-to-one paraprofessionals in

various classroom types. Though the Hendricks et al. (2017) study was not conducted in the

United States, it demonstrated a way that one-to-one paraprofessionals can academically assist in

various settings surrounding the classroom. One-to-one paraprofessionals are commonly seen

inside the classroom, but the one-to-one relationship can also have academic benefits outside of

the classroom as well.

The many functions of the one-to-one paraprofessional

One-to-one direct instruction has been a popular method of instruction for years. It can be

seen not only in special education, but also in the home, during tutoring sessions, and in

community partnership programs. In community prevention programs, youth-adult partnerships

are commonly utilized. These partnerships have various developmental benefits for the youth

and adult partner. When paired with an adult in community programs, youth develop a sense of

safety, empowerment, and social awareness (Zeldin & Petrokubi, 2008). Zeldin and Petrokubi

(2008) examined youth – adult partnerships in two separate community programs in Tennessee

and Texas. Researchers found that youth who worked with an adult partner were more likely to

go beyond their level of comfort by planning and implementing more complex community

projects (Zeldin & Petrokubi, 2008). The additional support provided by a one-to-one partner

allowed students to have an individualized level of support to allow the youth partner to reach

their maximum potential. Zeldin and Petrokubi's (2008) study is similar to the present study

since the adult community partners and one-to-one paraprofessionals are not required to have a

degree in education. The study emphasized the importance of staff development in areas of

collaboration and generativity (Zeldin & Petrokubi, 2008). It is important to recognize that when

someone is responsible for providing one-to-one instruction, regardless of the amount of

experience the individual may have, training and support are crucial to success.

Additionally, one-to-one instruction is used during tutoring sessions. Similarly, Vadasy et

al. (1997) investigated 40 one-to-one tutoring scenarios between at-risk, first grade beginner

readers and community members as tutors in the United States. This is another situation where

the adult partner of the one-to-one relationship is not required to have an education degree.

During this study, tutors included parents, grandparents, community college students and high

school students. Correspondingly, many individuals who are one-to-one paraprofessionals in

public schools on Long Island, New York may be parents, grandparents, or college students. In

the study, tutors received six hours of training that included goals and methods of the lessons,

general information about tutoring one-to-one, suggestions for behavior management, record

keeping, and in addition to having opportunities to practice role playing (Vadasy et al., 1997).

Results indicated that student success is dependent upon the selection, training, and supervision

of one-to-one tutors. Motivated tutors made a significant difference in the lives of students and

were most successful at delivering instruction consistently and with care. In addition, one-to-one

tutors benefitted from occasional visits to offer assistance, support, and reinforce effort (Vadasy

et al., 1997). In this study, one-to-one relationships were most successful when tutors were

confident and utilized the support and guidance given to them (Vadasy et al., 1997).

Unfortunately, in many public schools, one-to-one paraprofessionals are provided with minimal

professional development, guidance, or consistent support. In order for one-to-one

paraprofessionals, to be successful in their roles, especially those who do not have a background

or experience in special education, public schools need to listen to one-to-one paraprofessionals

and provide the feedback and support they need. Results from this study support the notion that

when one-to-one paraprofessionals are supported and feel confident, they have the potential to

supplement early reading instruction and prevent learning disabilities in at-risk children (Vadasy

et al., 1997). One-to-one relationships can be very meaningful academically, socially, and

emotionally with appropriate support systems in place.

One-to-One Literacy Instruction

One-to-one instruction is provided in music lessons, on sports teams, in special

education, and general education. Another common area the one-to-one relationship can be seen

in is literacy programs. One-to-one literacy instruction is an effective and common method to

advance literacy skills (Houge et al., 2008). Houge, et al. (2008) studied the one-to-one literacy

tutoring at the middle school level and found that when maintaining training for tutors, formal

lesson plans, and supervision by a specialist, one-to-one literacy instruction can be an effective

way to accelerate literacy skills (Houge et al, 2008). Researcher Mary Anne Doyle (2013)

explains the importance of the one-to-one method in literacy programs when she writes,

> One-to-one instructional settings allow the teacher to focus intently on the learner's
>
> response repertoire, respond immediately with the most appropriate, contingent support,
>
> and adjust instruction as needed. This is the important experience needed by the child
>
> who is having severe difficulty in acquiring literacy. (p. 650)

It is essential to give our undivided attention and support to students who are struggling. The

one-to-one relationship allows for quick and specific feedback during important academic

lessons such as literacy acquisition and practice.

There are various one-to-one research-based practices around literacy such as Reading

Recovery, Success for All, Prevention of Learning Disabilities, The Wallach Tutoring Program,

and Programmed Tutorial Reading. Wasik and Slavin (1993) examined one-to-one tutoring as a

possible solution in preventing early reading failure. To do so, they conducted a best-evidence

synthesis, which incorporates elements of meta-analysis and traditional narrative reviews, of

sixteen studies which examine the five well known one-to-one tutoring models mentioned above

(Wasik & Slavin, 1993). When analyzing these various one-to-one programs, the studies found

positive effects of one-to-one tutoring when comparing to a traditional teaching method (Wasik

& Slavin, 1993). The study did also note that results were more positive when the one-to-one

professional providing the reading instruction were certified (Wasik & Slavin, 1993). Reading

Recovery is a well-known intensive one-to-one program developed by Marie Clay (Shanahan &

Barr, 1995). The Reading Recovery intervention program, along with other one-to-one

intervention programs, have established direction, protocols, guidelines, and at times even

scripts. Shanahan and Barr conducted an independent evaluation of the effects of Reading

Recovery early intervention with at-risk elementary level learners (1995). The programs founder

Marie Clay was an avid supporter of one-to-one instruction. She is quoted in her book, *The Early

Detection of Reading Difficulties*, explaining that individual instruction is crucial in her program:

> To observe precisely what children are saying and doing, to observe what children have
>
> been able to learn (not what they have been unable to do), to discover what reading
>
> behaviors they should now be taught from an analysis of performance in reading texts, to
>
> shift the child's reading behaviour from less adequate to more adequate responding.
>
> (Clay, 1979, p. 8)

A particular kind of attention and support can only be given in a one-to-one setting. In addition,

professionals who provide this type of one-to-one instruction receive large amounts of

information, guidance, and support. The success of the Reading Recovery one-to-one program

depends directly on the quality of teaching and training for those providing instruction

(Shanahan & Barr, 1995). It is important to note that both studies (Wasik & Slavin 1993;

Shanahan & Barr, 1995) found positive effects of the one-to-one relationship in comparison to

traditional instructional methods. It is also equally as important to highlight that both studies

emphasized the great improvements that come with proper teacher training and support (Wasik

& Slavin 1993; Shanahan & Barr, 1995). The implementation of one-to-one literacy intervention

programs is a common responsibility among one-to-one paraprofessionals. Not only is this

another task that can fall under the various duties of one-to-one paraprofessionals, but it also

demonstrates the benefits that come when training and support are provided to those working in

one-to-one relationships. Examining one-to-one literacy intervention programs demonstrates

how the one-to-one relationship can have many benefits when given the proper guidance and support.

One-to-One Instruction Utilizing Behavior Analytic Methodologies

Another popular instructional method that can involve one-to-one paraprofessionals is intervention utilizing the principles of applied behavior Analysis (ABA). Specifically, behavior analytic interventions are widely recognized by special education teachers for their success in developing skills and decreasing challenging behavior (Rosenwasser & Axelrod, 2001). ABA can be used with any student population and is at the foundation of positive behavior interventions and supports. It is also the method closely associated with students with autism spectrum disorder (Dunlap et al., 2001). ABA is the study of behavior. With ABA, situations and the environment are set up to increase or decrease specific behaviors (Choutka et al., 2004). One application of ABA is the use of discrete trial teaching (DTT) in which relies on one-to-one instruction delivered by a paraprofessional.

Two separate studies (Cardinal et al., 2017; Serna et al., 2015) aimed to address the need of training for one-to-one paraprofessionals providing ABA services. Both studies acknowledge the increase of students with autism in the classroom and a need for highly qualified professionals to deliver instruction. In response to this need, many one-to-one paraprofessionals are asked to add this role to their repertoire. Specifically, the researchers examined effects of web-based video training for one-to-one paraprofessionals on four sets of student and paraprofessional pairs. Serna et al. (2015) developed an online program designed specifically for one-to-one paraprofessionals. This program titled, *LearningABA*, was found to be a great start to introduce topics and address concerns among paraprofessionals providing ABA services (Serna

et al., 2015). Further, Cardinal et al. (2017) examined four one-to-one relationships after the

paraprofessional received six weeks of web-based training. Results indicated that

paraprofessional fidelity and student skills both improved at the end of the intervention period

(Cardinal et al., 2017). ABA interventions are yet another example of the wide range of supports

one-to-one paraprofessionals provide. Various programs, instructional methods, strategies, and

techniques can fall under the role of a one-to-one paraprofessional. It is important that as more

responsibilities are added to the one-to-one paraprofessional job title, it is met with more training

and support in these areas as well.

Support and Training Needs of One-to-One Paraprofessionals

With many roles and responsibilities comes many areas that require training and support.

Another question this study plans to investigate is, in what areas do public school districts

support one-to-one paraprofessionals for their role with students in special education

classrooms? To best explore this question, it is important to analyze prior literature on the topic.

Walker and Smith (2015) conducted a literature review analyzing studies that addressed training

paraprofessionals to support students with disabilities. The goal was to identify and examine (a)

characteristics of a typical paraprofessional and setting where they work, (b) characteristics of

training and intervention, (c) the quality of the studies, and (d) areas of future research. Thirty

research studies that included 364 paraprofessionals were analyzed. Findings indicated the

majority of the paraprofessionals were female with some college education. There was little

information related to prior classroom experience. The authors noted the importance of

experience as a variable for intervention outcomes. Additionally, the study found that trainings

for one-to-one paraprofessionals were focused on knowledge about specific teaching skills,

communication, and social skills of the student with disabilities (Walker & Smith, 2015).

Though these are important training areas, the responsibilities of a one-to-one paraprofessional

go far beyond these topics. Walker and Smith (2015) suggest the need for future research to

evaluate paraprofessional training needs and skill levels. The present study aims to address this

need by examining the areas public-school districts support one-to-one paraprofessionals for

their role with students in special education classrooms.

Additionally, with regard to characteristics of training. Walker and Smith (2015) found

that there was little variety in the way in which training was provided to paraprofessionals.,

Training was often provided by an outside researcher or consultant in a form of a workshop,

lecture, or class (Walker & Smith, 2015). It is important to recognize that just as many students

have different ways of learning, as do adults. A one-day workshop or lecture may not be as

effective as training over time. Not only is it important to provide training and support on

specific topics, but it is just as important to provide the support and training that will be most

practical to implement.

Walker (2017) further researched paraprofessionals' perceived educational needs and

skill level by surveying 487 special education paraprofessionals working in the state of Virginia.

Results supported her previous research that paraprofessionals report to have high educational

needs. More specifically, paraprofessionals were asked their preferred training methods. Results

indicated that paraprofessionals would like more experiential learning opportunities within the

school setting (Walker, 2017). It is important to note that various studies discussed thus far did

not take place in New York, highlighting a need for this information in New York.

One literature review addressed the training needs of one-to-one paraprofessionals who

specifically are used for literacy instruction (Causton-Theoharis et al., 2007). According to

Causton-Theoharis et al. (2007) five effective ways to prepare one-to-one paraprofessionals for literacy instruction are to: (1) use research-based reading approaches; (2) make sure the one-to-one is trained in the reading approach; (3) train the one-to-one with behavior management techniques; (4) provide them with ongoing monitoring and feedback; and (5) ensure that their role is supplemental not primary. It is interesting to note that Causton-Theoharis et al. (2007) and Walker and Smith (2015) both highlighted that there is a need for one-to-one paraprofessionals to be trained in behavior management strategies and techniques.

Giangreco et al. (1997) investigated the effects of proximity in one-to-one relationships after noticing an increase in the use of one-to-one paraprofessionals in general education classrooms. Researchers conducted interviews and observations in 16 classrooms throughout 11 public schools across Connecticut, Massachusetts, Utah, and Vermont to gather data (Giangreco et al., 1997). The results of the study greatly supported an increase in training around proximity to students and a deeper look at classroom practices and policy. A major finding of this study is that one-to-one paraprofessionals, in this study referred to as instructional assistants, were consistently in close proximity to their students (Giangreco et al., 1997). The article also reported that this "ongoing closeness in proximity can cause: (a) interference with ownership and responsibility by general educators; (b) separation from classmates; (c) dependence on adults; (d) impact on peer interactions; (e) limitations on receiving competent instruction; (f) loss of personal control; (g) loss of gender identity; and (h) interference with instruction of other students" (p.7). This research is important to the present study because it examines 11 different public schools across the United States. In addition, it is important to highlight what can go wrong in order to promote specific training and support.

Giangreco (2010) commented on the negative effects that one-to-one paraprofessionals who supported students with disabilities in the general education public school settings can have. Giangreco challenged readers to question their preconceived notions about one-to-one support. Giangreco highlighted the risk of students becoming over-reliant on one-to-one paraprofessional support. He also emphasized the lack of training, supervision, and job clarification that one-to-one paraprofessionals receive to support children with disabilities (Giangreco, 2010). Giangreco further clarified that regardless of the amount of training a paraprofessional receives, they should not be responsible for providing the bulk of instruction for a special education child. Giangreco (2010) concluded that special education students were negatively impacted by the lack of support and training provided to the one-to-one paraprofessional. The lack of training and support by public school districts will be investigated in the present study.

Webster et al. (2010) investigated paraprofessionals in special education classrooms in the United Kingdom. They analyzed results from the Deployment and Impact of Support Staff (DISS) project. The DISS project was a large, longitudinal study that collected data in a naturalistic way, which captured typical day circumstances. This study used three waves of national questionnaire surveys of schools, teachers, and support staff that reached 6,079 schools, 4,091 teachers, and 7,667 support staff, and conducted direct observations of over 27 paraprofessionals across 18 schools (Webster et al., 2010). Results from the DISS project revealed that teacher assistant support can have negative impacts on student academic progress, notably students with special needs (Webster et al., 2010). Researchers organized their findings into three categories, deployment (assignment), practice (application), and preparedness (Webster et al., 2010). The results of this study are important to administrators to arrange for guidance and support in the areas of deployment, practice, and preparedness.

Webster et al. (2010) analyzed both qualitative and quantitatively data for the effects of the amount of support received by students on their academic progress and approaches to learning. The authors also analyzed training and professional development for paraprofessionals. Blatchford et al. (2012b) further clarified that this seven-year study was the largest study of paraprofessionals across the world. Though the study takes place in the United Kingdom, it is important to the present study because of the large sample size and the use of qualitative and quantitative data.

When analyzing results of the questionnaires, it appeared that many teachers believed the paraprofessionals in the classroom were a large positive support. After looking at student progress over the school year, results showed that students receiving the most support from paraprofessionals made less progress than their peers who did not receive paraprofessional support (Webster et al., 2010).

Through the lens of practice, the study analyzed voice recordings of paraprofessional-student interactions. Through these recordings, researchers found that in comparison to teachers, paraprofessionals' conversations with students focused on task completion rather than ensuring learning and understanding (Webster et al., 2010). Another finding showed that though paraprofessional support is beneficial for consistent prompting and further explanation of concepts, though they often provide students with the correct answers (Webster et al., 2010). The lens of preparedness focused on the amount of training and professional development for paraprofessionals and teachers working with them, in addition to day-to-day preparation time such as lesson planning and feedback time. Paraprofessionals reported to be satisfied with the professional development they received, but they were unsatisfied with the variety of professional development options (Webster et al., 2010). This is important to note because a

paraprofessional has a wide variety of roles and responsibilities. The training and information

provided for them should cover a wide variety as well. When looking at the preparation and

professional development for teachers working with paraprofessionals, 75% of those studied had

not received any training on working with paraprofessionals. Teachers also did not receive any

additional time to work with the paraprofessional to plan or provide feedback (Webster et al.,

2010). Webster et al.'s (2010) DISS project highlights an area to be addressed to improve

paraprofessional support, preparedness, and communication in public school districts.

     To further address the concerning findings of the DISS project, Blatchford, et al. (2012b)

designed a project titled the "Effective Deployment of Teaching Assistants (EDTA)." This study

worked with 40 teachers and paraprofessionals in 10 England schools with the goal to develop

and evaluate alternative strategies to paraprofessional deployment, practice, and preparedness

(Blatchford et al., 2012b). This yearlong study involved multiple developmental school-based

meetings with the research team, information audits, observations, interviews, researcher notes

and conclusions (Blatchford et al., 2012b). Researchers addressed their findings in terms of

deployment, practice, and preparedness. Regarding deployment, schools developed senior

leadership teams (SLT) to collaborate and analyze the purpose, expectations, and roles of

paraprofessionals in terms of student outcomes (Blatchford et al., 2012b). In terms of

preparedness, results displayed that when schools created time for teachers and paraprofessionals

to meet, there was a positive effect on the quality and clarity of lesson planning and increased

time for collaboration and feedback (Blatchford et al., 2012b). Lastly, through the lens of

practice, there was a high focus on how paraprofessionals communicated to their students.

Throughout the study, there was a focus for paraprofessionals to emphasize understanding and

learning, rather than task completion (Blatchford et al., 2012b). Paraprofessionals were

encouraged to provide appropriate wait time before responding, highlight student responsibility

for learning, and developing strategies to help students become independent learners (Blatchford

et al., 2012b). Though this study takes place in England, it is important to highlight the positive

findings related to opening lines of communication, collaboration, and mutual understanding to

benefit teachers, paraprofessionals, and students.

Utilizing numerous studies on the topic of one-to-one paraprofessional support and

training (Brown et al., 1999; Doyle, 1997; French, 1998; French & Brown, 1999), Giangreco, et

al. (2001a) developed "A Guide to Schoolwide Planning for Paraeducator Supports." This

resource, in the form of a guided packet, provides step-by-step activities to develop effective

support teams between educators and one-to-one paraprofessionals. The guided packet resource

provides self-assessment questions and space to plan out the important details and

responsibilities of those involved. The resource also has a self-assessment checklist of important

areas to address (a) orienting and training one-to-one paraprofessionals and those working with

them, (b) hiring and assigning one-to-one pairs, (c) roles and responsibilities of one-to-one

paraprofessionals and the teachers working with them, and (d) the supervision and evaluation of

one-to-one paraprofessionals. Lastly, the resource has a section for brainstorming, which areas of

the self-assessment require the most attention, followed by an action plan section (Giangreco et

al., 2001a).

Brock and Carter (2015) examined specific professional development designed to prepare

paraprofessionals to implement evidence-based practices. Researchers used a randomized

controlled experimental design to examine efficacy of a delivered training package and

individual components to prepare 25 paraprofessionals to implement constant time delay

throughout instruction. The training package had a statistically significant effect, with video

modeling and most notably coaching components to be most effective (Brock & Carter, 2015). It is important to highlight the strong effect of specified professional development and training methods. This research recommends further development in effective professional development opportunities for one-to-one paraprofessionals.

To best address the various areas of need that can better support one-to-one paraprofessionals, this paper will further examine areas of preparedness, support, communication, feedback, and involvement in the planning process. The next section will examine one-to-one paraprofessionals' needs in public schools.

Communication and Input of One-to-One Paraprofessionals

A prominent question the present study aims to answer about one-to-one paraprofessionals is how do public school districts communicate with one-to-one paraprofessionals about their role with students in special education classrooms? A goal of the present study is to survey one-to-one paraprofessionals about their role in special education classrooms, and ways public school districts can prepare, support, communicate, and become more involved in the planning process.

Previous researchers (Rutherford, 2011; Page & Ferrett, 2018) have asked for paraprofessionals' perspectives regarding their students' experiences. Rutherford (2011) acknowledged that paraprofessionals have complex support requirements when working with students as well as a varied range of roles. Rutherford (2011) interviewed 18 paraprofessionals using a social justice lens, asking questions in relation to student relationships and advocacy. It was noteworthy that 6 of the 18 participants in this study received no training for their role as a one-to-one paraprofessional. Findings suggested paraprofessionals felt they supported their

students by establishing relationships but lacked training and the ability to advocate for the students' needs.

Similarly, Page and Ferrett (2018) interviewed 14 paraprofessionals from two separate public schools in the Cook Islands and New South Wales, Australia. The purpose of the study was to ask paraprofessionals about the benefits and perceived effective strategies for teaching students with autism spectrum disorder (ASD). Paraprofessionals were asked to describe their greatest challenges working with students with ASD. Paraprofessionals shared they were required to know many unique teaching strategies and struggled most with behavioral challenges (Page & Ferrett, 2018). This information could be to provide further support for one-to-one paraprofessionals in these areas where they feel they are struggling. It is important to provide one-to-one paraprofessionals with the necessary support to work with students with disabilities effectively and confidently.

Most recently, Zobell and Hwang (2020) examined paraprofessionals' perceptions on their role, training, and supervision. A total of 47 paraprofessionals working in California were surveyed. When analyzing results, researchers found that most participants were fairly satisfied working in their current positions but the area with the lowest satisfaction rating was the area of support through professional development opportunities. Only 23% of participants reported to be given written expectations about roles and responsibilities when they first began the position (Zobell & Hwang, 2020). A common theme among the literature is an expressed need for further development and delivery of professional development opportunities for one-to-one paraprofessionals.

Interestingly, Page and Ferrett (2018) and Rutherford (2011) investigated the perspectives of paraprofessionals outside of the United States, while Zobell and Hwang

examined perspectives in California. The present study will add to the literature by providing

perspective directly from one-to-one paraprofessionals in New York.

Supporting One-to-One Paraprofessionals through Collaborative Inquiry and Feedback

Throughout the research discussed, communication and collaboration have been a

common theme when discussing ways to improve the experience and supports for one-to-one

paraprofessionals. Doing so will therefore improve the outcomes for students with disabilities as

well. It is important for the input of the one-to-one paraprofessional to be included to better

communicate and collaborate with teachers and administrative staff in public school districts.

Several researchers (Biggs et al., 2016; Majerus & Taylor, 2002; Short, 2018) have investigated

collaborative inquiry in educational settings.

When looking to better a relationship, it is important to look at how the relationship has

started. Biggs et al. (2016) conducted in-depth interviews with nine different educational teams

made up of 22 teachers and paraprofessionals to examine the quality of their professional

relationships and examine perspectives on what influences the quality of the relationships.

Researchers indicated five main influences on the quality of teacher and paraprofessional

relationships (1) teacher influences, (2) paraprofessional influences, (3) shared influences, (4)

administrative influences, and (5) underlying influences. Though administration may seem

removed from the classroom, administrators have the ability to establish meetings times between

educators. Administration can control the amount of collaboration and communication that goes

on within schools. Therefore, it is beneficial to establish a professional learning community

(PLC) with all members of the school community to be the most effective. The results of this

study called for an increased focus on positive teacher, special educator, and paraprofessional

collaborations.

More specifically, Barnes et al. (2021) examined collaboration between the classroom teacher and paraprofessional in self-contained special education classroom service students with emotional and behavioral disorders. It was interesting to highlight the different significance of communication among teachers and paraprofessionals when working in a more severe setting. Responses emphasized a need for more training opportunities not only for paraprofessionals, but for teachers working with paraprofessionals on how to supervise and effectively collaborative (Barnes et al., 2021). Researchers suggest further opportunities to develop teacher-paraprofessional collaboration.

Majerus and Taylor (2002) conducted a study to look at teachers' perceptions of paraprofessionals in the classroom and the extent teachers collaborate with paraprofessionals and provide preparation in the classroom. Though the authors questioned elementary music teachers, the purpose of this study was to examine the collaborative relationship between the teacher and paraprofessional. Five-hundred-four U.S. teachers who were part of the National Association for Music Education participated in this study by completing a 32-item Likert-type survey (Majerus & Taylor, 2020). The results of this study were concerning. Teachers shared that they required paraprofessionals to adapt music activities for their students spontaneously during class time but did not provide any guidance or training on how to teach these tasks (Majerus & Taylor, 2020). In addition, only eight of the five-hundred-four teachers indicated regular meetings with paraprofessionals or special educators to discuss goals or strategies (Majerus & Taylor, 2020). It is clear that teachers and paraprofessionals require support when establishing collaboration. Majerus and Taylor (2020) suggest administrative support in establishing set collaboration times throughout the school day for educators to work together to discuss goals, plans, and strategies. Findings indicated that by establishing these collaboration times, educators work out any

difficulties arising in the classroom as well (Majerus & Taylor, 2020). Collaboration and communication are extremely important in order for people to work together effectively and efficiently because they can learn from one another.

One study examined the experience of Ohio public-school districts using one-to-one paraprofessionals. Howley et al. (2017) developed a survey focusing on role definition, assignment, supervision, training, and pay. Surveys were sent to district superintendents and staff from support teams, of whom 184 responded to the survey questionnaire. Overall findings were concerning, suggesting that districts experience difficulty in defining the role of the paraprofessional, in addition to concerns with assignment, supervision, and training (Howley et al., 2017). Results imply that district leadership in Ohio pays little attention to the use of paraprofessionals while requesting collaboration and communication among paraprofessionals, support teams, in addition to building and district leaders.

Short et al. (2018) wrote a position paper on supporting paraprofessionals and tips for collaboration. The authors concluded that collaboration is the best way to promote effective communication. Collaboration proactively minimizes conflict, builds rapport, trust, and respect among professionals. It also improves instruction by better supporting student teaching (Short et al., 2018). Short et al. (2018) also suggested strengthening opportunities for professional growth through workshops and trainings. Often paraprofessionals are presented one time training that may not be applicable or meaningful to each individual situation in order to enhance workplace satisfaction and success (Short et al., 2018). They further suggested including paraprofessionals in staff development opportunities. Short et al. (2018) suggests that collaboration and professional learning communities (PLCs) can be extremely helpful for deployment aspects including (a) ensuring appropriate partnerships, (b) planning appropriate professional

development, and (c) including one-to-one paraprofessionals in the planning process to have

their needs met. Various studies presented throughout chapter two have suggested open lines of

communication and collaboration to allow one-to-one paraprofessionals to be most successful.

The current study intends to add to the literature by providing information about the role,

support, communication, feedback, and involvement in the planning process of one-to-one

paraprofessionals in the United States, specifically Long Island, New York.

Implementation Science and Involvement in the Education Setting

When scientists conduct research, it is to solve or learn more about a particular problem.

Through this exploration, one will typically try to propose a solution to fix the problem and we

learn how we can do better next time. Research surrounding one-to-one paraprofessional support

has continued to highlight the need for support, training, and collaboration in order to best

support these professionals. The area of implementation science has been developed to spread

the use of evidence-based practices (EBPs) into routine practice in order for quality and

effectiveness of services (Bauer et al., 2015). The importance of paraprofessional training, the

benefits of PLCs regarding planning for and supervising one-to-one paraprofessionals are proven

research practices to support one-to-one paraprofessionals (Bauer et al., 2015).

Moir (2018) describes implementation science as "the study of the components necessary

to promote authentic adaptation of evidence-based interventions, thereby increasing their

effectiveness" (p.1). Moir (2008) advocates for implementation science to be incorporated into

the design and evaluation of professional development in school districts. Moir (2018) claims

implementation science is a way to allow for maximized positive outcomes in the most cost-

effective way. This is important to point out because when working to support and train staff

members, a district should anticipate spending additional money. The focus on implementation and the use of PLCs allows school districts to improve their supports by spending money on methods that will focus attention on their high-quality staff instead of spending extra money on failed program after failed program (Moir, 2018). If school districts promoted the use of PLCs focusing on implementation as a means of professional development, staff members would be learning from one another and have time to collaborate.

The area of implementation science requires educators to be reflective about their teaching. Lyon (n.d.) wrote a brief white paper specifically about implementation science and practice in the education field. Lyon (n.d.) explains how implementation is a complex process that unfolds over time, through different stages. These stages start with evidence-based intervention strategies, such as positive behavior intervention supports (PBIS) to help one-to-one paraprofessionals reduce outbursts in the classroom. Next, Lyon (n.d.) describes how implementation strategies such as training, consultations, consensus discussions regarding the implementation of these EBPs will lead to positive implementation outcomes as well as positive student social, emotional, behavioral, and academic outcomes.

It is important to highlight that the implementation strategies listed in Lyon's (n.d.) research brief such as: (a) local consensus discussions, (b) prepare champions, (c) train for leadership, (d) make training dynamic, and (e) facilitating relay of data to school personnel are research strategies to greatly benefit one-to-one paraprofessionals and are also aspects present in PLCs as well. The role and responsibilities of a one-to-one paraprofessional must be further examined to better the support and quality of education provided not only to staff, but most importantly students.

In relation to the classifications from the EDTA project (Batchford et al., 2012a) viewing the area of practice from an implementation science lens is vital. Such detailed attention should be given to the way one-to-one paraprofessionals provide their support on a day-to-day basis. The areas of collaborative inquiry, PLCs, and implementation science provide a framework and rationale for meaningful intervention to help better the experience and support for one-to-one paraprofessionals working with students with special needs in public schools.

Public schools have employed more one-to-one paraprofessionals over the last 20 years. The laws and guidance in selecting and training one-to-one paraprofessionals are very few. Each school building prepares, trains, and supports these one-to-one paraprofessionals differently. There has been much caution advised when resorting to the use of a one-to-one paraprofessional due to concerns of overreliance on the individual and a lack of independence or social isolation with the student with special needs (Giangreco et al., 1997). An increase in collaboration, communication, and the use of PLCs are ways that can strengthen supports for one-to-one paraprofessionals and therefore increase the quality of education for students with special needs.

Summary of Chapter

The purpose of the present study was to determine how perceptions of preparation, support, communication, feedback, and planning contribute to the overall role of one-to-one paraprofessionals and to identify specific areas where one-to-one paraprofessionals require guidance and support to assist students receiving special education services. An interesting trend that appeared in the research was that many studies were conducted outside of the United States. For example, Page & Ferrett (2018) and Rutherford (2011) were conducted in Australia while Blatchford et al.'s studies (2012a, 2012b) were conducted in the United Kingdom. The current study intended to add to the literature by providing information about the role, support,

communication, feedback, and involvement in the planning process of one-to-one

paraprofessionals in the United States, specifically Long Island, New York.

CHAPTER III

METHOD

Chapter three described the methodology used to conduct this quantitative, descriptive survey study of one-to-one paraprofessional perceptions on their training, preparation, and support needs. For this study, data was collected through a Likert-scale survey questionnaire. Hearing the perspectives of one-to-one paraprofessionals and what they need, allows public school administrators and cooperating teachers to better support these professionals and increase ongoing communication. This research could not only better the practicing one-to-one paraprofessional but can also be beneficial for the student with special needs working directly with the one-to-one paraprofessional as well.

An introduction to the present study, describing the nature, purpose, and stating the research questions led this chapter. Next, the survey method and the reasoning for utilizing this method of study was described. In this chapter, the study design and choice for multiple linear regression analysis was described in detail. Lastly, the cover letter emailed to potential participants, the permission letter sent to participants with the survey through Qualtrics Survey Tool, the Likert-scale survey, data analysis through IBM SPSS Statistics (SPSS) and a description about those instruments as well was presented.

Nature of the Study, Research Approach and Research Questions

The purpose of the present study was to identify specific areas where one-to-one paraprofessionals require guidance and support to assist students receiving special education services from the perspective of one-to-one paraprofessionals. One-to-one paraprofessionals' background information (e.g., age, gender, age level of student, passage of the Assessment of

Teaching Assistant Skills (ATAS), years of experience in education, type of class student is in, and professional preparation) were examined. The problem that the study aimed to address was the lack of specified support for one-to-one paraprofessionals from their perspective and the lack of research around one-to-one paraprofessional support. The goal of this study was to examine one-to-one paraprofessionals' perspectives of preparation, support, communication, feedback, and input to identify specific areas where they require guidance and support in order to work with students who are receiving special education services. The following research questions guided this study:

RQ 1: From the perspective of one-to-one paraprofessionals, how does preparation contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 2: From the perspective of one-to-one paraprofessionals, how does support contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 3: From the perspective of one-to-one paraprofessionals, how does communication contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 4: From the perspective of one-to-one paraprofessionals, how does feedback contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 5: From the perspective of one-to-one paraprofessionals, how does planning contribute to one-to-one paraprofessionals' role in public school classrooms?

Research Design

To highlight preparation methods, professional development, and support approaches for one-to-one paraprofessionals, a survey methodology was utilized to gather information about the

topic. Groves et al. (2009) define "a 'survey' as a systematic method for gathering information from (a sample of) entities for the purposes of constructing quantitative descriptors of the attributes of the larger population of which the entities are members" (p. 2). The current study aimed to gather information directly from one-to-one paraprofessionals to describe possible areas of improvement for serving special education students. A survey design methodology was used with one-to-one paraprofessionals working in public schools across Long Island.

There are many different aspects involved in survey research. An important aspect of creating a survey is to minimize survey error. Groves et al. (2009) describes survey error as "deviations from the true values applicable to the population studied" (p.3). To enhance the quality of survey results, specific consideration needs to be given to what questions are asked, how answers are collected, and who answers the questions (Groves et al., 2009). In addition, the protection of the survey respondents must be considered. Whenever possible, connections between survey answers and respondent identifiers should be minimized. Common identifiers include names, e-mail/postal addresses, and telephone numbers (Fowler, 2014). The Internet was utilized to deliver survey questions to participants and best protect identifying information. The advantages of Internet surveys are that respondents do not have to share answers with researcher, increasing the validity of data collection (Fowler, 2014). This helps to eliminate a chance for bias and preserve the quality of survey results.

This study used a frame, or list, of target participants retrieved from Long Island University's Center of Community Inclusion. This frame included email information for all special education administrators and superintendents working in public-school districts on Long Island. Superintendents and administrators were contacted (Appendix A) and asked to share survey information with one-to-one staff. The internet, specifically email, was used to contact

participants. Two weeks after sending out the email, another reminder was sent out. After one

month, the goal of 70 responses was not obtained. The survey link was then shared for an

additional month through word of mouth. The link was sent to professors in graduate school

programs in which many students work as one-to-one paraprofessionals. Individuals were asked

to share the survey with their colleagues. In addition, the survey was also shared with a group of

one-to-one paraprofessionals working in a summer school program. These methods were utilized

to maximize participation from the target population. Special consideration of nonresponse bias

must be considered when utilizing the Internet (Blair & Blair, 2015). Nonresponse bias refers to

when the non-respondents from a sample differ from the respondents (Groves et al., 2009). To

avoid nonresponse bias and maximize responses, efforts were made to maximize participation by

using the Internet and Likert-scale questions.

Study Participants

One-to-one paraprofessionals working in public schools on Long Island with

special education students were the population of interest for this research project. The goal of

the research design was to acquire a non-random sample of over 70+ adults working as a one-to-

one paraprofessional in public school districts. The survey had responses from 64 one-to-one

paraprofessionals working in public school districts in Long Island, New York, though 78% of

the 64 respondents (50) completed the survey. Utilizing networking through Long Island

University, Post campus, and personal contacts, the study aimed to receive feedback from 136 +

public-school districts across Long Island, New York. District superintendents and

administrators were contacted through email (Appendix A) and were asked to consider sharing

the survey with their one-to-one paraprofessionals. In addition, participants could have been

contacted directly and were asked to share the survey with other one-to-one paraprofessionals as

well, using a "word of mouth" approach. Each participant was presented with a description of the

study and permission forms (Appendix B) prior to participation.

Setting

The setting for this study was across public school district classrooms on Long Island.

Respondents worked in a public-school setting with students who require one-to-one assistance.

Respondents were able to participate wherever they may like since communication regarding the

study will take place online.

Procedures

Data Collection

Once the dissertation proposal was defended, the institutional review board (IRB) from

Long Island University Post reviewed the design of this proposed study. In addition,

superintendents and administrators were contacted to request support in delivering the survey to

one-to-one staff in their districts. Permission from one-to-one paraprofessionals completing the

survey was required prior to data collection to notify the participants of the purpose of the study,

to ensure that their privacy is protected, and to inform them that participation is voluntary.

After approval from LIU's IRB was granted, superintendents and special education

administrators of the participating public schools were contacted via email (see Appendix A).

These emails introduced the researcher and the purpose of the study and requested the sharing of

the study information to any one-to-one paraprofessionals on their staff. Respondents were given

a link to deliver to one-to-one faculty. Participants were contacted directly with the description

of the study, survey link, and request to share the survey with any one-to-one working in public

schools on Long Island. By clicking on the link, participants were able to read the research

consent form (Appendix B) and the one-to-one paraprofessional Likert-scale survey (Appendix

C) which was delivered through Qualtrics Survey Tool. The letter to participants explained that

participation is voluntary, and permission is assumed by responding to the survey. A Likert-scale

survey was chosen to encourage participation with a convenient survey that was quick and at an

easy readability level. Data was collected through an online survey with 20 Likert-scale

questions. These questions addressed one-to-one paraprofessional perspectives of preparation,

support, communication, feedback and involvement in the planning process from their public-

school districts.

Survey Instrument

There were four parts to the present research study: (a) introduction, (b) participants'

consent to use their recorded responses, (c) demographic information, and (d) Likert-scale

questions. The introduction page to the research survey (Appendix B) provided a description of

important aspects such as the purpose of the study, approximate completion time, rights as a

research participant, and a reminder that the survey is strictly voluntary. Once participants gave

consent, they were asked demographic and background information. Age, gender, age level of

student, passage of the Assessment of Teaching Assistant Skills (ATAS), years of experience in

education, type of class student is in, and professional preparation were asked of each

participant.

The last part of the study asked participants of the study to respond to 20 Likert-scale

survey statements. Rensis Likert, founder of the University of Michigan Survey Research Center,

found that questions with a scaled set of answers can accomplish as much as lengthy responses

(Groves et al., 2009). For example, the scale utilized in the present study had four alternatives to

select after each statement, strongly disagree (1), disagree (2), agree (3), and strongly agree (4).

The present research survey contained four statements for each research question the study aims to address (See Table 1). The present survey had 20 Likert-scale statements (Appendix C) related to the research questions. Table 1 illustrates the connection among research questions, Likert-scale statements, and resources. Assigning a numerical value to each alternative allows for easier tabulation and scoring (Likert, 1974). In sum, a Likert scale questioning method was used to survey preparation, training, communication, and support needs of one-to-one paraprofessionals working in public schools on Long Island. Finally, the research survey concluded with a page thanking the participants for their contribution to this research project.

Likert-scale statements were adapted from Giangreco et al.'s (2001) guide, which outlines ten planning steps to better prepare for paraeducator supports. One of the planning steps, section three, asked team members to assess their own status in relation to six major paraeducator topics, acknowledging para-educators, orienting and training, hiring and assigning, interactions with others, roles and responsibilities, and supervision and evaluation (Giangreco et al., 2001). Team members were asked to do this by responding to 28 statements with a response of "Needs major work," Needs some work", "OK for now", or "Doing well". Specifically, the statements were developed by the collective personal and professional experiences of the researchers as parents, community members, paraeducators, advocates, teachers, special educators, related service providers, and administrators, combined with their knowledge from educational literature and research (Giangreco et al., 1999). Responses provided valuable information for the team to improve one-to-one paraprofessional supports. The use of multiple stakeholders in the development of Giangreco et al.'s (2001) instrument provided content validity for their research. The statements are intended to promote reflection and improvement towards specific aspects of paraeducator planning. This type of research is beneficial for one-to-

one paraprofessional teams across Long Island. For the purpose of the current study, 13

statements from the guide (Giangreco et al., 2001) were modified to connect to the present

research questions. The connection is illustrated in Table 1.

Table 1

Connection among Likert-scale Survey Statements, Research Questions, & Resources

Research Questions	Likert-scale Survey Statements	(Giangreco et al., 2001)
1- How do public school districts prepare one-to-one paraprofessionals for their role in special education classrooms?	1- I receive an accurate job description that outline the various roles and responsibilities for which I am responsible.	Section C: Hiring & Assigning Paraeducators #14
	2- I received information about my assigned student, classrooms, and school.	Section B: Orienting & Training Paraeducators #4
	3- I am explained my role and responsibilities and am given guidance on working directly with my specific student.	
	4- I am informed of the educational needs (ex. IEP goals and objectives) and characteristics of the student I am working with.	Section E: Roles & Responsibilities of Paraeducators #20
2- In what areas do public school districts support one-to-one paraprofessionals for their role with students in special education classrooms?	5- I receive training or professional development about work habits that promote student independence (when appropriate), and prevent unintended negative effects often associated with over-involvement or over reliance of adults.	Section D: Paraeducator Interactions with Students & Staff #17
	6- I receive training or professional development in relevant areas such as applied behavioral analysis, supporting students with specific disabilities, challenging behaviors, and supportive technology.	

Table 1 (continued)

	7- I have access and options to ongoing learning opportunities. These opportunities include professional development such as workshops, courses, and meetings with specified staff members.	Section B: Orienting & Training Paraeducators #6
	8- I would like more support for working with my student, such as training for supporting the implementation of individualized education and behavioral plans, facilitating learning activities, collecting student data, providing personal hygiene supports, etc.	
3- How do public school districts communicate about one-to-one paraprofessionals' role in special education classrooms?	9- If I have any concerns about my student or my role, I typically do not voice them and figure it out for myself.	
	10- In my school, there are established meeting times to allow one-to-one paraprofessionals to be familiar with teacher plans, report progress, express concerns, ask questions, and provide input.	Section E: Roles & Responsibilities of Paraeducators #23
	11- I have a supervisor that can answer questions for me and provide clarification and guidance when needed.	Section F: Supervision &Evaluation of Paraeducator Services #24

Table 1 (continued)

	12- I typically turn to the lead teacher or special educator if I have any questions or concerns.	Section E: Roles & Responsibilities of Paraeducators #18
4- In what ways do public school districts provide feedback for one-to-one paraprofessionals toward their role in special education classrooms?	13- My school has a method to evaluate the impact of one-to-one paraprofessional services on individual students, classrooms, and involved staff members.	Section F: Supervision &Evaluation of Paraeducator Services #28
	14- I receive regular feedback from the teacher and/or special educator to best support my assigned student.	Section E: Roles & Responsibilities of Paraeducators #19
	15- My supervisor performs performance evaluations that are based on individual job descriptions.	Section F: Supervision &Evaluation of Paraeducator Services #24
	16- I receive formal written feedback at the end of the year.	
5- To what degree are one-to-one paraprofessionals involved in the planning process of special education students in public school classrooms?	17- I am a member of an educational team including general education teachers, special education teachers, related service providers, parents, and the student (when appropriate) which joins to discuss student progress, and the one-to-one paraprofessional work assignment.	Section A: Acknowledging Paraeducators #1

Table 1 (continued)

	18- My input is valued in meetings about student progress, placement, and day-to-day situations.	
	19- I have the opportunity to give input into the development of individualized education plans, instructional plans, and activities developed by an educational team.	Section E: Roles & Responsibilities of Paraeducators #21
	20- I am in communication with my assigned student's family to best plan for my support.	

Note. Above indicates 13 of the 20 Likert-scale statements utilized in the present study that are an adaptation of section three, the self-assessment portion of "A Guide to Schoolwide Planning for Paraeducator Supports" by Michael F. Giangreco, Susan W. Edelman, and Stephen M. Broer (2001).

A pilot study (Giangreco et al., 2002) was conducted to further validate the use of the

Likert-scale statements. The pilot study surveyed 27 participants from four different school

teams through the use of the ten-step planning process mentioned above. The pilot study found

that the planning process, which included the Likert-scale statements, rated highly on various

consumer-oriented variables (Giangreco et al., 2002). This crucial study provides initial data on a

practical tool that can be used to improve one-to-one paraprofessional supports by public school

districts. All of the survey respondents of the pilot study "agreed" or "strongly agreed" that the

paraeducator action planning process helped their school to identify appropriate priorities that

require attention and helped to develop appropriate plans to address the self-identified priorities

(Giangreco et al., 2002). Participants agreed that participation in the planning process was an

important activity (Giangreco et al., 2002).

To increase the validity, reliability, and statistical power the survey was administered to

46 schools, over 13 states during the 2000-2001 and 2001-2002 school years. Giangreco et al.

(2003b) published findings and included feedback from 331 individuals. Results indicated the

paraeducator planning process: "(a) helped them gain insights about paraeducator issues in their

schools; (b) helped them understand the perspectives of others about paraeducator issues; (c)

helped their schools select appropriate priorities that required attention; (d) helped their schools

develop appropriate plans to address self-identified priorities; (e) was an important activity for

their school; (f) was logical, and (g) easy to use" (Giangreco et al., 2003b, p.69). Studies that

utilized or referenced the Likert-scale statements are listed in Table 2.

Table 2

Sources for Likert-scale Survey Statements

Sources
Giangreco, CichoskiKelly, Backus, Edelman, & Tucker (1999)
Giangreco, Edelman & Broer (2001)
Giangreco, Edelman & Broer (2002)
Giangreco, Edelman & Broer (2003)

Note. The sources above reference or utilize the Likert-scale survey statements.

Giangreco et al.'s (2002) and (2003b) research specifically asked and found that the planning process did what it was intended to do. This is proof of face validity that their survey instrument appeared to measure what it was intended to measure. It also is a reliable measure since both studies yielded similar results (Hammond & Lester, 2022).

Data Analysis

Overall, the independent variables being measured in the present study include one-to-one paraprofessional preparation, support, communication, feedback, and involvement in the planning process. The variables were examined through a Likert-scale survey to identify specific areas where one-to-one paraprofessionals require guidance and support for students in special education classrooms. The one-to-one paraprofessional Likert-scale survey was administered using the Qualtrics Survey Tool and analyzed using SPSS. The Qualtrics Survey Tool was utilized to capture preparation, training, communication, and support needs of one-to-one paraprofessionals working in public schools across Long Island. Responses were measured through 20 Likert-scale (rated as 1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly agree*) survey questions, four questions addressed each of the five research questions. For example, questions one through four relate to research question one that involves preparation. These questions inquire about job descriptions and important information around roles and responsibilities and important student information. The next four questions relate to research question two that asks about support. Therefore, questions were related to training and professional development opportunities.

The Qualtrics Survey Tool has been utilized for various studies when inquiring about perceptions of a certain population (Dishman et al., 2021; Ortiz et al., 2016; Hendricks & Buchanan, 2013). Qualtrics is an online survey tool that allows its users to design and edit

surveys, react to live survey responses, collect and analyze data, and creates reports to present

visualizations, graphs, tables, and charts of data (Qualtrics, 2021). Dishman, Duckhart, and

Hardman (2021) utilized Qualtrics Survey Tool to examine perceptions of occupational

therapists of the assistive technology education received in occupational therapy entry-level

programs. Similar to the present study, a quantitative survey was delivered through the web

based Qualtrics survey tool. Ortiz et al. (2016) also utilized Qualtrics to deliver a 12-question

survey to employers, 11 of the questions being Likert-scale. Researchers reported that Qualtrics

software was able to track and tally responses and provide summary reports about the survey

(Ortiz et al., 2016). Hendricks & Buchanan employed the Qualtrics survey tool to gather

information about librarian job satisfaction (2013). They also reported on Qualtrics convenience

when collecting data, analyzing data, and creating reports (Hendricks & Buchanan, 2013). Each

of the studies mentioned above analyze responses about attitude to look for hidden themes

among responses. Jared Lau et al. (2015) reported on the use of Qualtrics in a higher education

setting. The information provided in this study was very convincing to utilize the tool for the

present study. Lau et al. (2015) reported that Qualtrics provides options for data to be analyzed

directly within Qualtrics or data can also be easily exported into formats comparable with Excel.

Researchers also explained that Qualtrics has a collaborative aspect which allows multiple

researchers to view results (Lau et al., 2015). This would allow for easy access among

researcher, dissertation advisor, and committee members.

Data collected from Qualtrics Survey Tool was further analyzed for commonalities

among responses. SPSS was used to provide descriptive statistics and standard deviations among

survey responses. SPSS is a powerful statistical tool that was designed specifically for data

analysis in the social sciences, the natural sciences, and the business world (George & Mallery,

2022). This popular statistical tool was created in the late 1960's by three Stanford graduate students (George & Mallery, 2022). This statistical software is widely used due to its complex and powerful abilities, in addition to its user friendliness. Further analysis was conducted to identify patterns of relationships between perceived preparation, support, communication, feedback, and planning for one-to-one paraprofessionals. Likert scale statements were coded based on the research question they relate to and examined through Pearson correlation analysis to explore the relationship, if any, among statements pertaining to each research question. Pearson correlation analysis provides a correlation coefficient that lies between -1 and 1 (Field, 2009). A correlation coefficient of +1 indicates a perfect positive correlation, while a correlation coefficient of -1 indicates a perfect negative correlation (Field, 2009). These correlation coefficients will be used to determine if there is a relationship among the statements relating to each research question.

Likert-type data is ordinal data. With this type of data, one cannot use means as an accurate description, but can use medians, modes, and frequency counts to describe data. A Chi-Squared analysis is a non-parametric statistic that examines frequencies of responses. In Giangreco et al.'s 2003b study, chi-square was applied to the categorical Likert-style data to explore differences in responses based on their role in the school. These Likert-style statements were those which are similar to the statements in the present study. A chi-square analysis compares two variables at a time (George & Mallery, 2022). Considering, the present study involves five different independent variables, a chi-square analysis would not work appropriately with the survey design of the present study.

Multiple linear regression is a statistical analysis that shows the influence of multiple independent variables on one dependent variable. Multiple regression also creates a regression

equation that can be used to predict the dependent variable based on the independent variables (George & Mallery, 2022). The present study aimed to examine five different variables. In addition, the goal of the study was to prioritize the needs and supports of one-to-one paraprofessionals. Using multiple linear regression allowed for the analysis of multiple variables. Multiple regression also creates correlation coefficients between the predictor variables and the dependent variable (Field, 2009). Therefore, multiple linear regression analysis can be used to determine the relationship and influence between perceived preparation, support, communication, feedback, and planning. In addition, it can be used to predict and prioritize the areas of support that are of most importance to one-to-one paraprofessionals working in public schools in Long Island, New York.

Ethical Considerations and Human Subjects Protections

In order to protect human subjects involved in the study, the Internet was utilized to deliver the survey to participants and minimize contact between the researcher and participant. Prior to beginning the survey, respondents were informed of the purpose of the study in addition to a reminder that participation is voluntary. To minimize nonresponse bias, the Internet and email, were utilized to maximize participation.

Limitations

One limitation of the present study is that it relies solely on self-reported data. Brutus et al. (2013) reported concerns surrounding internal and external validity when using self-reported data. Concerns with internal validity mean that the study may not accurately measure the research questions with bias. Concerns with external validity indicate that the study may not be generalizable. Another limitation of the present study is that it uses a nonrandom sampling

technique that can lend itself to bias. Specifically, utilizing the Internet may not allow for representation of the full population of one-to-one paraprofessionals in public schools on Long Island. This may influence the external validity of the present study.

Expected Benefits and Contributions of Study

This study aimed to provide guidance and support for one-to-one paraprofessionals working in public schools on Long Island. To do so, the present study aimed to provide school building leaders with information that can be utilized to promote positive change for one-to-one paraprofessionals and the students and faculty they work with. Providing this information also allows school building leaders to transform the methods they use to prepare and support their one-to-one paraprofessionals. In addition, it allows one-to-one paraprofessionals to feel included and important. Lastly, this study aimed to contribute further information to the small body of research aimed to support one-to-one paraprofessionals specifically.

Summary of Chapter

The five research questions that drive the present study are listed in this chapter. The research design, target population, and data collection procedures are described in detail. Following, data analysis methods are described to identify any relationship among responses. The proposed analysis is described, as well as limitations and benefits of the study. Findings collected during the proposed study will be presented in Chapter IV.

CHAPTER IV

FINDINGS OF THE STUDY

Introduction

The purpose of this chapter is to summarize the findings from a review of the survey responses and results from a multiple linear regression analysis. This study provided an in-depth view of specific areas in which one-to-one paraprofessionals desire support and guidance in public school special education programs. Blatchford, Webster, and Russel (2012) found that difficulties are not often found within the one-to-one paraprofessional themselves, but the way they are prepared and supported by their school. This study aimed to prioritize areas that public school districts can improve upon addressing the preparation and support needs of one-to-one paraprofessionals as they deliver special education services within their classrooms.

The chapter is divided into three sections to present data collected and analyzed in this study. The first section contains a description of the participants' demographic information. Next, findings from a Qualtrics survey are reported. Finally, a summary of the multiple linear regression findings is presented to answer the following research questions:

RQ 1: From the perspective of one-to-one paraprofessionals, how does preparation contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 2: From the perspective of one-to-one paraprofessionals, how does support contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 3: From the perspective of one-to-one paraprofessionals, how does communication contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 4: From the perspective of one-to-one paraprofessionals, how does feedback contribute to one-to-one paraprofessionals' role in public school classrooms?

RQ 5: From the perspective of one-to-one paraprofessionals, how does planning contribute to one-to-one paraprofessionals' role in public school classrooms?

Data Source

In the present study there were two data sources. To develop an appropriate survey, Qualtrics Survey Tool was first utilized in creating and formatting the survey instrument. The work of Giangreco et. al, (1999, 2001, 2002, 2003) was then examined to develop appropriate Likert-scale statements. The Likert-scale statements were entered into the survey software Qualtrics. Directions for the survey were also modeled after surveys by Giangreco et al. (1999, 2001, 2002, 2003).

Qualtrics Survey Tool

The Qualtrics Survey Tool is a software that has been utilized when inquiring about perceptions of a certain population (Dishman et al., 2021; Hendricks & Buchanan, 2013; Ortiz et al., 2016). Qualtrics is an online survey tool that allows its users to design and edit surveys, react to live survey responses, collect and analyze data, and it creates reports to present visualizations, graphs, tables, and charts of data (Qualtrics, 2021). Researchers reported that Qualtrics software was able to track and tally responses and provide summary reports about the survey (Ortiz et al., 2016). They also reported on Qualtrics convenience when collecting data, analyzing data, and creating reports (Hendricks & Buchanan, 2013). Each of the studies mentioned above analyze responses about attitude to look for hidden themes among responses. Jared Lau et al. (2015) reported on the use of Qualtrics in a higher education setting. The information provided in this

study was very convincing to utilize the tool for the present study. Lau et al. (2015) reported that Qualtrics provides options for data to be analyzed directly within Qualtrics or data can also be easily exported into formats comparable with Excel. Researchers also explained that Qualtrics has a collaborative aspect which allows multiple researchers to view results (Lau et al., 2015). This would allow for easy access among researcher, dissertation advisor, and committee members.

After IRB review, it was determined that the survey was classified as exempt (Appendix D) and made available for the month of June 2022. Qualtrics Survey Tool created a private link that was administered through email.

Data collection began on June 1st, 2022, when LIU's Center for Community Inclusion sent a request to all Long Island superintendents and special education administrators to pass on the survey to one-to-one staff in their districts with the private link to the survey. One school district directly inquired about sharing the survey and distributed among their one-to-one employees. Responses were collected on the first day of administration. One week before the survey was set to close, there were 26 reported responses. After submitting an amendment to the IRB application, the survey was approved to be administered through word of mouth and extended until July 15th, 2022. Following, the survey link was shared with one-to-one paraprofessionals working in a public-school summer program, and one-to-one paraprofessionals taking classes at LIU Post. Participants were asked demographic questions in addition to questions about perceived preparation, support, communication, feedback, and planning.

Survey Instrument

An additional data source was the survey instrument. The proposed survey instrument

had 20 Likert-scale statements (Appendix C) related to the research questions. The scale utilized

in the present study provided respondents with a choice of four alternatives after each statement,

strongly disagree (1), disagree (2), agree (3), and strongly agree (4). The survey contained four

statements pertaining to training, communication, and support needs of one-to-one

paraprofessionals working in public schools on Long Island, each corresponding to a research

question the study addressed (See Table 1).

Likert-scale statements were adapted from Giangreco et al.'s (2001) guide, which

outlines 10 planning steps to better prepare for paraeducator supports. Responses provided

valuable information for the team to improve one-to-one paraprofessional supports. For the

purpose of the current study, 13 statements from the guide (Giangreco et al., 2001) were

modified to correspond to the present research questions. The correspondence is illustrated in

Table 1.

Giangreco et al., (2002) conducted a pilot study to further validate the use of the Likert-

scale statements. To increase the validity, reliability, and statistical power, the survey was again

administered to 46 schools, over 13 states during the 2000-2001 and 2001-2002 school years.

Giangreco et al. (2003b) published findings and included feedback from 331 individuals. Studies

that utilized or referenced the Likert-scale statements are listed in Table 2.

Giangreco et al.'s (2002) and (2003b) research using chi square analyses specifically

asked and found that the planning process did what it was intended to do. This is proof of face

validity that their survey instrument appeared to measure what it was intended to measure. It also is a reliable measure since both studies yielded similar results (Hammond & Lester, 2022).

Participants

Sixty-four one-to-one paraprofessionals working in public school districts in Long Island, New York responded to the survey. Seventy-eight percent of the 64 respondents (50) completed the survey. Only respondents who completed the survey were included in the analyses.

Demographic Information

Of the 50 respondents, 96% (48) were female, 2% of respondents were male (1), and 2% of respondents reported their gender as other (1). Fifty-four percent (27) of the one-to-one paraprofessionals who responded were between 51 and 60 years of age. Twelve percent of respondents (6) were between 21 and 30 years of age. Eight percent of respondents (4) were between 31 and 40 years of age. Twenty percent of respondents (10) were between 41 and 50 years of age. Six percent of respondents (3) were 61 between 70 years of age.

Respondents were asked about their teacher preparation coursework/degree and professional development opportunities. Fifty-two percent (26) of the one-to-one paraprofessionals indicated they participated in professional development provided by their public school district. Thirty-two percent (16) stated they had taken additional courses and workshops, while 30% (15) stated they had taken college courses in a related field. Twenty-four percent (12) of participants earned a bachelor degree in an unrelated field, where 20% (10) earned a bachelor degree in a related field. Twenty percent (10) of respondents took college courses in an unrelated field. Eighteen percent of respondents (9) earned a master degree in a related field, while 4% (2) received a master degree in an unrelated field. Eight percent of

respondents (4) earned an associate degree in a related field, while the same amount earned an

associate degree in an unrelated field. There were 10% of participants (5) who did not receive

any educational preparation coursework, degrees, or professional development.

In order to become a New York State Certified Teaching Assistant, one must pass the

Assessment of Teaching Assistant Skills (ATAS) exam. Of the respondents, 56% (28)

respondents were New York State Certified Teaching Assistants. Forty-four percent of

participants (22) were not New York State Certified Teacher Assistants.

Participants were asked about their years of experience working as a one-to-one

paraprofessional. Seventy-eight percent of participants (39) had 4 or more years of experience.

Fifty-four percent of participants (27) had six or more years of experience, while 24% of

participants (12) had four to five years of experience. Twenty-two percent of participants (11)

had 3 or less years of experience working as a one-to-one paraprofessional. Sixteen percent of

participants (8) had two to three years of experience, and 6% of participants (3) had zero to one

year of experience.

The one-to-one paraprofessionals were asked about the students they serviced.

Specifically, (1) the age level of students, (2) the classrooms they serviced, and (3) whether the

student received applied behavior analysis (ABA) interventions. With respect to age level of

students, 26% (13) worked with students in the early childhood (birth- 1st grade), 38% of

participants (19) worked with students in grades (2nd to 5th), 30% (15) worked with students in

grades (6th to 8th), and 6% (3) worked with students in high school, (9th to 12th grade).

With regard to classroom placement, 46% of respondents (23) worked in self-contained

special education classrooms. In the self-contained setting, 40% of respondents (20) worked with

students with mild disabilities, while 6% of respondents (3) reported working with students with

severe disabilities. Fifty-four percent of one-to-one paraprofessionals surveyed (27) worked in

the general education setting. Twenty-six percent of one-to-one paraprofessionals surveyed (13)

reported to work in integrated co-taught (ICT) classrooms and 28% (14) worked in general

education classrooms.

Lastly, 58% of respondents (29) reported that they do not work with students on the

autism spectrum who receive ABA intervention. This indicated that 42% (21) of respondents

worked with students with receive ABA intervention services.

Table 3

Demographic Characteristics of Participants

Characteristic	n	%
Gender		
Female	48	96
Male	1	2
Other	1	2
Age		
21-30	6	12
31-40	4	8
41-50	10	20
51-60	27	54
61-70	3	6
Age of student		
Early childhood (birth – 1st grade)	13	26
Elementary (2nd – 5th grade)	19	38
Middle school (6th – 8th grade)	15	30
High school (9th – 12th grade)	3	6
Classroom setting		
General education classroom	14	28
Integrated co-taught (ICT) classroom	13	26
Self contained class with students with mild disabilities	20	40
Self contained class with students with severe disabilities	3	6
Years of experience		
0-1 year	3	6
2-3 years	8	16
4-5 years	12	24
6 years +	27	54
Certified teaching assistant (passed ATAS)		
Yes	28	56
No	22	44
Student receives applied behavior analysis (ABA) services		
Yes	21	42
No	29	58
Teacher preparation coursework / degree		
College course in a related field	15	30
College course in an unrelated field	10	20
Associates degree in a related field	4	8
Associates degree in an unrelated field	4	8
Professional development provided by my district	26	52
Additional educational courses / workshops	16	32
Bachelors degree in a related field	10	20
Bachelors degree in an unrelated field	12	24
Masters degree in a related field	9	18
Masters degree in an unrelated field	2	4
None of the above	5	10

Note. N = 50. Totals of percentages are not 100 for every characteristic due to rounding.

Preliminary Analysis

Prior to conducting the multiple linear regression analyses, the reliability of the statements, variables, and outliers were examined. A Pearson correlation analysis was conducted for each statement variable to measure the strength of their associations. A correlation analysis creates correlation coefficients which describe the direction and strength or an association between two variables (Schober et al., 2018). Based on the strong association demonstrated in the results (see Tables 4-8), the composite scores below were then determined. Composite scores were created to provide a better construct of the variable measured for each hypothesis after the Pearson correlation analyses revealed strong associations.

- **Average perceived preparation (AvgPerceivedPreparation) of one-to-one paraprofessionals who worked in public school districts on Long Island**: This is a discrete variable measured in percentage points ($M = 2.6650$, $SD = .80434$, $N = 50$). This composite variable was created by calculating an average of responses from the four potential determinants of perceived preparation: (a) receiving an accurate job description (Q11); (b) receiving an accurate description of the student classroom and school (Q12); (c) being explained the role and responsibilities with guidance (Q13; and (d) being informed of the students IEP (Q14) (see Table 4).

Table 4

Average Perceived Preparation Pearson Correlation Results

Variable	Q10	Q11	Q12	Q13	Q14
Q10. Average perceived preparation	——				
Q11. Job description	0.82	——			
Q12. Given student/class information	0.93	0.63	——		
Q13. Role and responsibilities	0.89	0.68	0.84	——	
Q14. IEP information	0.88	0.60	0.80	0.66	——

Note. $N = 50$.

- **Average perceived support (AvgPerceivedSupport) of one-to-one paraprofessionals who worked in public school districts on Long Island**: This is a discrete variable measured in percentage points ($M = 2.2650$, $SD = .68959$, $N = 50$). This composite variable was created by calculating an average of responses from the four potential determinants of perceived support: (a) receiving training/professional development about work habits that prevent overreliance and promote independence (Q21); (b) receiving training/professional development in relevant areas such as ABA, supporting specific disabilities, behaviors, or technology (Q22); (c) having access to ongoing learning opportunities such as professional development courses, workshops, or meetings (Q23); and (d) the want for additional support (Q24) (see Table 5).

Table 5

Average Perceived Support Pearson Correlation Results

Variable	Q20	Q21	Q22	Q23	Q24
Q20. Average perceived support	——				
Q21. Work habits PD	0.90	——			
Q22. ABA, behaviors, tech PD	0.83	0.73	——		
Q23. Ongoing PD opportunities	0.89	0.75	0.68	——	
Q24. Satisfaction with support	0.39	0.17	0.01	0.17	——

Note. *N* = 50.

- **Average perceived communication (AvgPerceivedCommunication) of one-to-one paraprofessionals who worked in public school districts on Long Island**: This is a discrete variable measured in percentage points ($M = 2.7450$, $SD = .54979$, $N = 50$). This composite variable was created by calculating an average of responses from the four potential determinants of perceived communication: (a) voicing their opinion (Q31); (b) having established meeting times to allow for communication (Q32); (c) having a supervisor to answer questions and provide clarification (Q33); and (d) having a lead or special education teacher to turn to and ask questions (Q34) (see Table 6).

Table 6

Average Perceived Communication Pearson Correlation Results

Variable	Q30	Q31	Q32	Q33	Q34
Q30. Average perceived communication	——				
Q31. Reach out regarding concerns	0.70	——			
Q32. Established meeting times	0.65	0.23	——		
Q33. Designated supervisor	0.76	0.33	0.37	——	
Q34. Lead teacher as advisor	0.65	0.43	0.13	0.33	——

Note. $N = 50$.

- **Average perceived feedback (AvgPerceivedFeedback) of one-to-one**

  paraprofessionals who worked in public school districts on Long Island: This is a

  discrete variable measured in percentage points ($M = 2.4700$, $SD = .73478$, $N = 50$). This

  composite variable was created by calculating an average of responses from the four

  potential determinants of perceived feedback: (a) having a method to evaluate the impact

  of one-to-one paraprofessional services (Q41); (b) receiving regular feedback from the

  lead or special education teacher (Q42); (c) having a supervisor perform performance

  evaluations (Q43); and (d) receiving formal written feedback at the end of the year (Q44)

  (see Table 7).

Table 7

Average Perceived Feedback Pearson Correlation Results

Variable	Q40	Q41	Q42	Q43	Q44
Q40. Average perceived feedback	——				
Q41. Evaluation method for one-to-one	0.70	——			
Q42. Receive regular feedback from teacher	0.74	0.36	——		
Q43. Performance evaluations from supervisor	0.83	0.47	0.43	——	
Q44. Formal written feedback	0.82	0.33	0.54	0.66	——

Note. $N = 50$.

- **Average perceived planning (AvgPerceivedPlanning) of one-to-one paraprofessionals who worked in public school districts on Long Island**: This is a discrete variable measured in percentage points ($M = 1.9600$, $SD = .62139$, $N = 50$). This composite variable was created by calculating an average of responses from the four potential determinants of perceived planning: (a) feeling part of an educational team who joins to discuss student progress (Q51); (b) having valued input on meetings about progress, placement, and day-to-day situations (Q52); (c) having opportunity to give input to the development of IEPs, instructional plans, and activities (Q53); and (d) communicating with the assigned student's family to best plan for support (Q54) (see Table 8).

Table 8

Average Perceived Planning Pearson Correlation Results

Variable	Q50	Q51	Q52	Q53	Q54
Q50. Average perceived planning	——				
Q51. Member of educational team	0.73	——			
Q52. Input valued in meetings	0.78	0.39	——		
Q53. Opportunity to give input to IEP / plans	0.78	0.40	0.64	——	
Q54. Communication with student's family	0.70	0.41	0.31	0.34	——

Note. $N = 50$.

Data Analysis

To analyze data, the survey window was closed on Qualtrics Survey Tool on July 15ᵗʰ 2022. Data was exported from Qualtrics into SPSS version 27. This study employed SPSS in conducting all data analysis.

Composite scores were first calculated based on four potential determinants of each variable representing each research question. The statements, "At times I would like more support for working with my students, such as training for supporting the implementation of individualized education and behavioral plans, facilitating learning activities, collecting student data, providing personal hygiene supports, etc." (Q24) and "If I have any concerns about my students or my role, I typically do not voice them and figure it out for myself" (Q31) were negatively worded. They were also negatively coded after being entered into SPSS to be fairly compared to the other Likert-scale statements. When analyzing statements, there was a positive and typically moderate to strong correlation among statements (See Table 4). Since each statement had a strong correlation, combining statements into composite scores reduced information overload.

A multiple regression analysis was the primary statistical method for each research question in this study. Multiple regression was used to fit a model to the data and used the model to predict values (Field, 2009). Using this model, multiple regression is able to produce further information beyond the data. There was an established a priori criterion of $\alpha = .05$. With multiple statistical analyses being performed on the same, small sample of data, it is recommended to perform a Bonferroni correction to protect from type one errors. A type one error is when one rejects the null hypothesis when in fact the null hypothesis is true. A Bonferroni correction is an adjustment applied to *p*-values when multiple statistical analysis has been performed on the same

sample of data (Gignac, 2018). The Bonferroni correction of α/5 was applied since there were 5

different multiple linear regression analyses being run on the same sample of data. This created a

new significance level of α=.01. This criterion level was applied for *F* and *t* statistics associated

with the individual regression coefficients as well. Significance after a Bonferroni correction

indicates a control for type one, false positives, and type two errors, false negatives.

In addition, SPSS was used to add the 95% confidence intervals to the regression table, in

addition to the beta weights. These statistics are reported to explain the influence each

independent variable has on the dependent variable. Multicollinearity is a phenomenon that

occurs in statistics when two or more predictor variables in a regression model are highly

corelated (Plotts, 2011). To check for multicollinearity, the SPSS program was used to report the

variance inflation factors (*VIF*) scores for each independent, predictor variable. When reviewing

for multicollinearity, there were two acceptance criteria: No *VIF* > 10.00 and all $1/VIF \geq .20$.

Lastly, Microsoft Excel was used to format the tables.

Findings

Research Question 1

RQ 1: From the perspective of one-to-one paraprofessionals, how does preparation

contribute to one-to-one paraprofessionals' role in public school classrooms? Participant

responses to each statement around this question are summarized in Table 9. In this area, it is

important to note: (a) 38% of respondents indicated that they did not receive a job description at

the start of their position; (b) 34% reported not being explained their roles and responsibilities;

and (c) 36% of one-to-one paraprofessionals reported to have not had been informed of any

individual educational needs, such as the students IEP goals or objectives. These responses were

averaged together to create composite scores for average perceived preparation.

Table 9

RQ 1 Survey Responses

#	Question	Strongly Disagree (1)		Disagree (2)		Agree (3)		Strongly Agree (4)	
11	I received an accurate job description that outlined the various roles and responsibilities for which I am responsible.	12%	6	26%	13	46%	23	16%	8
12	I received information about my assigned student, classrooms, and school.	16%	8	10%	5	58%	29	16%	8
13	I was explained my role and responsibilities and was given guidance on working directly with my specific student.	12%	6	22%	11	54%	27	12%	6
14	I was informed of the educational needs (e.g., Individualized Education Program [IEP] goals and objectives) and characteristics of the student with whom I am working.	20%	10	16%	8	48%	24	16%	8

Note. $N = 50$.

The multiple linear regression results for research question 1, shown in Table 10, revealed a highly statistically significant model ($F = 16.01$, $p(F) < .001$, $R^2 = 0.59$, adjusted $R^2 = 0.55$). This model identified one statistically significant predictor of average perceived preparation: average perceived support. The *VIF* tests for multicollinearity indicated that all predictors satisfy the a priori criteria. As shown in Table 10, the test found no $VIF > 10.00$ and all $1/VIF \geq .20$. The regression model indicated that the average perceived preparation of one-to-one paraprofessionals in public schools can be predicted by average perceived support.

Table 10

RQ 1 Regression Results

Predictor	*b*	*SE*	*t*	*p*	*LL*	*UL*	Beta	VIF	1/*VIF*
Average perceived support	0.47	0.17	2.84	.01**	0.14	0.80	.40	2.19	0.45
Average perceived communication	0.51	0.22	2.28	.03*	0.06	0.95	.35	2.49	0.40
Average perceived feedback	0.00	0.16	0.00	1.00	-0.32	0.32	.00	2.33	0.43
Average perceived planning	0.23	0.14	1.69	.10	-0.04	0.51	.18	1.23	0.81
Constant	-0.24	0.43	-0.56	.58	-0.90	0.62			

Note. $F = 16.01$, $p < .001$, $R^2 = .59$, adjusted $R^2 = .55$, $N = 50$, *,** indicate significance at .05 and .01 respectively.

The first research question addressed the effect of average perceived support, averaged perceived communication, averaged perceived feedback, and averaged perceived planning on averaged perceived preparation. As shown in Table 9 and Table 10, average perceived support (operationalized by percentage points) was found to have a statistically significant positive effect on the averaged perceived preparation of a one-to-one paraprofessional working in a public school district in Long Island, NY ($p=.01$), after adjusting for the effects of all other variables in the model. Averaged perceived support can influence averaged perceived preparation positively by about 0.47 percentage points. This increase might be as great as 0.80 percentage points or as low as 0.14 percentage points. Averaged perceived support was the only statistically significant predictor in the regression analysis and had the most influence on averaged perceived preparation ($\beta = .40$). It appears that averaged perceived support contributes significantly to feelings of averaged perceived preparation. This highlights the importance of continuous supports in place to assist one-to-one paraprofessionals in their support-roles.

Research Question 2

RQ 2: From the perspective of one-to-one paraprofessionals, how does support contribute to one-to-one paraprofessionals' role in public school classrooms? Participant responses to each statement around this question are summarized in Table 11. When asked about professional development opportunities: (a) 50% of respondents indicated they had not received professional development in the area of work habits or overreliance; (b) 46% indicated they had not received professional development in supporting students with specific disabilities, challenging behaviors, supportive technology or ABA; (c) 46% shared they did not have access to ongoing learning opportunities, and most notably; (d) 92% of respondents indicated they would like more support

for working with their individual student. These responses were averaged together to create

composite scores for average perceived support.

Table 11

RQ 2 Survey Responses

#	Question	Strongly Disagree (1)		Disagree (2)		Agree (3)		Strongly Agree (4)	
21	I receive training or professional development about work habits that promote student independence (when appropriate) and prevent unintended negative effects often associated with over-involvement or over reliance on adults.	18%	9	32%	16	38%	19	12%	6
22	I receive training or professional development in relevant areas such as applied behavioral analysis, supporting students with specific disabilities, challenging behaviors, and supportive technology.	16%	8	40%	20	32%	16	12%	6
23	I have access and options to ongoing learning opportunities. These opportunities include professional development such as workshops, courses, and meetings with specified staff members.	22%	11	24%	12	38%	19	16%	8
24	I would like more support for working with my student, such as training for supporting the implementation of individualized education programs and behavioral plans, facilitating learning activities, collecting student data, providing personal hygiene supports, etc.	4%	2	4%	2	54%	27	38%	19

Note. N = 50.

The multiple linear regression results for research question 2, shown in Table 12, revealed a highly statistically significant model ($F = 17.71$, $p(F) < .001$, $R^2 = 0.61$, adjusted $R^2 = 0.58$). This model identified one statistically significant predictor of average perceived support: average perceived preparation. The *VIF* tests for multicollinearity indicated that all predictors satisfy the a priori criteria. As shown in Table 12, the test found no *VIF* > 10.00 and all 1/*VIF* $\geq$ .20. The regression model indicated that average perceived support of one-to-one paraprofessionals in public schools can be predicted by average perceived preparation.

Table 12

RQ 2 Regression Results

Predictor	*b*	*SE*	*t*	*p*	*LL*	*UL*	Beta	VIF	1/VIF
Average perceived communication	0.36	0.19	1.93	.06	-0.02	0.74	.29	2.57	0.39
Average perceived feedback	0.20	0.13	1.52	.14	-0.07	0.46	.21	2.22	0.45
Average perceived planning	0.04	0.12	0.29	.77	-0.20	0.27	.03	1.30	0.77
Average perceived preparation	0.32	0.11	2.84	.01**	0.09	0.55	.38	2.06	0.49
Constant	-0.14	0.36	-0.41	.69	-0.86	0.57			

Note. $F = 17.71$, $p < .001$, $R^2 = .61$, adjusted $R^2 = .58$, $N = 50$, *,** indicate significance at .05 and .01 respectively.

The second research question addressed the effect of average perceived preparation, averaged perceived communication, averaged perceived feedback, and averaged perceived planning on averaged perceived support. As shown in Table 11 and Table 12, average perceived preparation (operationalized by percentage points) was found to have a statistically significant positive effect on the averaged perceived support of one-to-one paraprofessionals working in a public school district in Long Island, NY ($p=.01$) after adjusting for the effects of all other variables in the model. Averaged perceived preparation can influence averaged perceived support positively by about 0.32 percentage points. This increase might be as great as 0.55 percentage points or as low as 0.09 percentage points. Averaged perceived support was the only statistically significant predictor in the regression analysis and had the most influence on averaged perceived support ($\beta = .38$). It seems to make sense that averaged perceived preparation contributes significantly to feelings of averaged perceived support, since it was found that average perceived support was a statistically significant predictor of average perceived preparation. This is also interesting to note that average perceived support had a slightly stronger influence on preparation. This highlights the importance of the partnership between preparation and continuous support. These two topics go hand in hand to provide one-to-one paraprofessionals with the information, tools, and skills they need to be most successful.

Research Question 3

RQ 3: From the perspective of one-to-one paraprofessionals, how does communication contribute to one-to-one paraprofessionals' role in public school classrooms? Participant responses to each statement around this question are summarized in Table 13. Regarding established meeting times, 76% of respondents (38) shared that they do not have established meeting times to allow input and collaboration. Additionally, 94% of survey respondents (46)

reported that they turn to the classroom teacher or special education teacher for questions or

concerns. These responses were averaged together to create composite scores for average

perceived communication.

Table 13

RQ 3 Survey Responses

#	Question	Strongly Disagree (1)		Disagree (2)		Agree (3)		Strongly Agree (4)	
31	If I have any concerns about my student or my role, I typically do not voice them and figure it out for myself.			28%	14	50%	25	20%	10	2%	1
32	In my school, there are established meeting times to allow one-to-one paraprofessionals to be familiar with teacher plans, report progress, express concerns, ask questions, and provide input.			32%	16	44%	22	20%	10	4%	2
33	I have a supervisor that can answer questions for me and provide clarification and guidance when needed.			14%	7	20%	10	54%	27	12%	6
34	I typically turn to the lead teacher or special educator if I have any questions or concerns.			4%	2	2%	1	50%	25	44%	22

Note. N = 50.

The multiple linear regression results for research question 3, shown in Table 14, revealed a highly statistically significant model ($F = 20.11$, $p(F) <.001$, $R^2 = 0.64$, adjusted $R^2 = 0.61$). This model identified one statistically significant predictor of average perceived communication: average perceived feedback. The *VIF* tests for multicollinearity indicated that all predictors satisfy the a priori criteria. As shown in Table 14, the test found No *VIF* > 10.00 and all 1/*VIF* ≥ .20. The regression model indicated that average perceived communication of one-to-one paraprofessionals in public schools can be predicted by average perceived feedback.

Table 14

RQ 3 Regression Results

Predictor	*b*	*SE*	*t*	*p*	*LL*	*UL*	Beta	VIF	1/VIF
Average perceived feedback	0.31	0.09	3.34	.00**	0.12	0.49	.40	1.87	0.54
Average perceived planning	-0.11	0.09	-1.21	.23	-0.29	0.07	-.12	1.27	0.79
Average perceived preparation	0.21	0.09	2.28	.03*	0.02	0.39	.30	2.17	0.46
Average perceived support	0.21	0.11	1.93	.06	-0.01	0.43	.27	2.38	0.42
Constant	1.18	0.21	5.61	.00	0.75	1.60			

Note. $F = 20.11$, $p < .001$, $R^2 = .64$, adjusted $R^2 = .61$, $N = 50$, *,** indicate significance at .05 and .01 respectively.

The third research question addressed the effect of average perceived preparation, averaged perceived support, averaged perceived feedback, and averaged perceived planning on averaged perceived communication. As shown in Table 13 and Table 14, average perceived feedback (operationalized by percentage points) was found to have a highly statistically significant positive effect on the averaged perceived communication of one-to-one paraprofessionals working in a public school district in Long Island, NY ($p<.01$) after adjusting for the effects of all other variables in the model. Averaged perceived feedback can influence averaged perceived communication positively by about 0.31 percentage points. This increase might be as great as 0.40 percentage points or as low as 0.12 percentage points. Averaged perceived feedback was the only statistically significant predictor in the regression analysis and had stronger influence on averaged perceived communication ($\beta = .40$). There was a strong connection between average perceived communication and average perceived feedback. This appears to make sense because in the field of education feedback is a major form of communication. These results emphasize the importance of continuous feedback to open lines of communication between all involved parties.

Research Question 4

RQ 4: From the perspective of one-to-one paraprofessionals, how does feedback contribute to one-to-one paraprofessionals' role in public school classrooms? Participant responses to each statement around this question are summarized in Table 15. Regarding one-to-one feedback, 42% (21) of people reported that their school has a method to evaluate the impact of a one-to-one teacher. Additionally, 52% (26) respondents shared that their supervisor does not perform evaluations based on job descriptions. These responses were averaged together to create composite scores for average perceived feedback.

Table 15

RQ 4 Survey Responses

#	Question	Strongly Disagree (1)		Disagree (2)		Agree (3)		Strongly Agree (4)	
41	My school has a method to evaluate the impact of one-to-one paraprofessional services on individual students, classrooms, and involved staff members.	30%	15	28%	14	34%	17	8%	4
42	I receive regular feedback from the teacher and/or special educator to best support my assigned student.	14%	7	24%	12	50%	25	12%	6
43	My supervisor performs performance evaluations that are based on individual job descriptions.	24%	12	28%	14	38%	19	10%	5
44	I receive formal written feedback regularly (e.g., at the end of the year).	18%	9	10%	5	52%	26	20%	10

Note. $N = 50$.

The multiple linear regression results for research question 4, shown in Table 16, revealed a highly statistically significant model ($F = 14.98$, $p(F) <.001$, $R^2 = 0.57$, adjusted $R^2 = 0.53$). This model identified one statistically significant predictor of average perceived feedback: average perceived communication. The *VIF* tests for multicollinearity indicated that all predictors satisfy the a priori criteria. As shown in Table 16, the test found no *VIF* > 10.00 and all 1/*VIF* ≥ .20. The regression model indicated that average perceived feedback of one-to-one paraprofessionals in public schools can be predicted by average perceived communication.

Table 16

RQ 4 Regression Results

Predictor	*b*	*SE*	*t*	*P*	*LL*	*UL*	Beta	VIF	1/VIF
Average perceived planning	0.24	0.13	1.86	.39	0.14	0.80	.20	1.21	0.82
Average perceived preparation	0.00	0.14	0.01	1.00	0.06	0.95	.00	2.42	0.41
Average perceived support	0.25	0.16	1.52	.14	-0.32	0.32	.23	2.45	0.41
Average perceived communication	0.65	0.20	3.34	.00**	-0.04	0.51	.49	2.23	0.45
Constant	-0.34	0.40	-0.87	.39	-1.14	0.46			

Note. $F= 14.98$, $p < .001$, $R^2 = .57$, adjusted $R^2 = .53$, $N = 50$, *,** indicate significance at .05 and .01 respectively.

The fourth research question addressed the effect of average perceived preparation, averaged perceived support, averaged perceived communication, and averaged perceived planning on averaged perceived feedback. As shown in Table 15 and Table 16, average perceived communication (operationalized by percentage points) was found to have a highly statistically significant positive effect on the averaged perceived feedback of one-to-one paraprofessionals working in a public school district in Long Island, NY ($p<.01$) after adjusting for the effects of all other variables in the model. Averaged perceived communication can influence averaged perceived communication positively by about 0.65 percentage points. This increase might be as great as 0.51 percentage points or as low as -0.04 percentage points. Averaged perceived communication was the only statistically significant predictor in the regression analysis and had the most influence on averaged perceived communication ($\beta = .49$). There was a strong connection between average perceived feedback and average perceived communication. It is important to note that averaged perceived feedback and average perceived communication were both the only highly statistically significant predictor when analyzing each individually, though averaged perceived feedback had more influence on averaged perceived communication, than the other way around.

Research Question 5

RQ 5: From the perspective of one-to-one paraprofessionals, how does planning contribute to one-to-one paraprofessionals' role in public school classrooms? Participant responses to each statement around this question are summarized in Table 17. Responses pertaining to the topic of planning revealed strong results. When asked about being a part of an educational team to discuss the one-to-one work assignment, 74% (37) of one-to-one paraprofessionals disagreed or strongly disagreed. In addition, 80% (40) survey respondents

disagreed or strongly disagreed when asked if they had the opportunity to give input regarding

the student. Lastly, 86% (43) people shared that they are not in communication with the student's

family to plan for support. These responses were averaged together to create composite scores

for average perceived planning.

Table 17

RQ 5 Survey Responses

#	Question	Strongly Disagree (1)		Disagree (2)		Agree (3)		Strongly Agree (4)	
51	I am a member of an educational team including general education teachers, special education teachers, related service providers, parents, and the student (when appropriate) that joins to discuss student progress and the one-to-one paraprofessional work assignment.	28%	14	46%	23	22%	11	4%	2
52	My input is valued in meetings about student progress, placement, and day-to-day situations.	26%	13	30%	15	40%	20	4%	2
53	I have the opportunity to give input into the development of individualized education plans, instructional plans and activities developed by an educational team.	30%	15	50%	25	18%	9	2%	1
54	I am in communication with my assigned student's family to best plan for my support.	52%	26	34%	17	8%	4	6%	3

Note. N = 50.

The multiple linear regression results for research question 5, shown in Table 18, revealed a highly statistically significant model ($F = 3.45$, $p(F)=.015$, $R^2 = 0.24$, adjusted $R^2 = 0.17$). This model identified no statistically significant predictors of average perceived planning. The *VIF* tests for multicollinearity indicated that all predictors satisfy the a priori criteria. As shown in Table 18, the test found no *VIF* > 10.00 and all $1/VIF \geq .20$. The regression model indicated that there were no statistically significant predictors for average perceived planning in the present study.

Table 18

RQ 5 Regression Results

Predictor	b	SE	t	p	LL	UL	Beta	VIF	1/VIF
Average perceived preparation	0.26	0.15	1.69	.10	-0.05	0.56	.33	2.28	0.44
Average perceived support	0.06	0.19	0.29	.77	-0.32	0.44	.06	2.57	0.39
Average perceived communication	-0.29	0.24	-1.21	.23	-0.78	0.19	-.26	2.70	0.37
Average perceived feedback	0.30	0.16	1.86	.07	-0.03	0.63	.36	2.17	0.46
Constant	1.21	0.41	2.92	.01	0.38	2.04			

Note. $F = 3.45$, $p = .015$, $R^2 = .24$, adjusted $R^2 = .17$, $N = 50$, *,** indicate significance at .05 and .01 respectively.

The fifth research question addressed the effect of average perceived preparation, averaged perceived support, averaged perceived communication, and averaged perceived feedback on averaged perceived planning. As shown in Table 17 and Table 18, there were no statistically significant predictors of the averaged perceived planning of one-to-one paraprofessionals working in a public school district in Long Island, NY after adjusting for the effects of all other variables in the model. Though average perceived feedback was not a statistically significant predictor, it did have a strong influence on average perceived planning (β = .69). It is interesting that there was not a statistically significant predictor for average perceived planning, when the education field revolves so much around planning.

Summary

This chapter summarizes the data collection and analyses portion of the present study. The study employed Qualtrics Survey Software to collect data from participants. Participants included 50 one-to-one paraprofessionals working in public school districts on Long Island, New York. After collection, data were exported into SPSS for analysis. Composite scores were created to provide a better construct of the variable measured for each hypothesis after the correlation analyses revealed strong associations, ensuring that they measured the same underlying construct. Using these composite scores, a multiple linear regression analysis was employed for each research question. Regarding average perceived preparation, average perceived support was the only statistically significant predictor. Oppositely, the only statistically significant predictor for perceived average support was perceived average preparation. Lastly, average perceived planning did not have any statistically significant predictors. Further, discussion of the findings, limitations and future research will be examined in the next chapter.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

FOR FUTURE RESEARCH

The first chapter began with an introduction to the problem through a vignette. In this vignette a one-to-one paraprofessional who is assigned to a student who is on the autism spectrum with a severe peanut-allergy was introduced. The student begins to display concerning behaviors. The one-to-one is unsure of who to turn to or what to do. The one-to-one has not been given the guidance, support, or any type of professional development for working with students with disabilities. The chapter further emphasized the support and guidance needs of one-to-one paraprofessionals by specifically examining preparation methods, provided supports, communication, feedback, and one-to-one involvement in the planning process. Chapter 2 featured research describing the federal and state preparation requirements. The various roles of one-to-one paraprofessionals, professional development opportunities, communication and feedback methods, and planning procedures were further discussed to provide a full view of the problem one-to-one paraprofessionals encounter in public schools. Chapter 3 described the survey administered to participants and the research methodology. Chapter 4 presented the quantitative research findings.

A presentation of the multiple linear regression findings to theory and research will be included in this chapter. The results were analyzed in terms of predictor variables: (1) perceived preparation, (2) perceived support, (3) perceived communication, (4) perceived feedback, and (5) perceived planning. Conclusions attained by the analyses of the results are also presented in this

chapter. In addition, limitations and recommendations for further research for public school

administrators and one-to-one paraprofessionals are presented.

This quantitative, descriptive survey study was designed to identify one-to-one

paraprofessionals' perceptions of the guidance and support needed to assist students receiving

special education services. More specifically, the relationship between perceived preparation,

support, communication, feedback, and planning were examined. These constructs were guided

from previous survey studies (Giangreco et al., 1999; Giangreco et al., 2002; Giangreco et al.,

2003b). Findings of the current investigation support existing research indicating that the

forementioned variables will positively benefit the role of the one-to-one paraprofessional

working in public schools. Therefore, this dissertation contributes to the current body of research

relating to one-to-one paraprofessional methods and techniques for guidance (Blatchford et al.,

2012a; Blatchford et al., 2012b; Giangreco et al., 1999; Giangreco et al., 2002; Giangreco et al.,

2003b; Rutherford, 2011; Walker & Smith 2015; Walker, 2017; Webster et al., 2010).

Summary of Findings

To create a more accurate construct of the measured variable for each research question,

composite scores were created after a Pearson correlation analysis revealed strong associations

among variables (see Tables 4-8). To answer each research question, five multiple linear

regression analyses were conducted using the composite variables as the dependent variable.

This was done to determine the predictive relationship between the multiple independent

composite variables and the dependent variable. Using each variable as the dependent variable

highlights the individual relationship between the dependent variable and all of the independent

variables that contribute to the overall role of a one-to-one paraprofessional. This allows the

complex relationship of each variable and the overarching role of the one-to-one

paraprofessional to be investigated.

The multiple regression results for research question 1, shown in Table 10, revealed a

highly statistically significant model ($F = 16.01$, $p(F) < .001$, $R^2 = 0.59$, adjusted $R^2 = 0.55$),

indicating that average perceived preparation contributes significantly to the overall role of a

one-to-one paraprofessional. More specifically, multiple linear regression results created a model

that can be used to analyze the relationship between variables and predict future outcomes. The

model is able to describe the data 55% better than just looking at the mean (adjusted $R^2 = 0.55$).

When examining which areas are most positively associated with average perceived preparation,

this model identified average perceived support as the only statistically significant predictor of

average perceived preparation. These results demonstrate the positive connection between

perceived preparation and support, when comparing preparation to multiple variables that

contribute to the overall role of one-to-one paraprofessionals. From the perspective of one-to-one

paraprofessionals, when examining the overall role of the one-to-one, perceived preparation

contributes positively to feelings of perceived support. Regression analyses allows for a

conclusion that perceived preparation can predict future perceived support. It is also important to

highlight that 38% of respondents reported that they did not receive a job description at the start

of their position and 36% of one-to-one paraprofessionals indicated that they were not informed

of any individual educational needs, such as the student's IEP goals or objectives.

The multiple regression results for research question 2, shown in Table 12, revealed a

highly statistically significant model ($F = 17.71$, $p(F) < .001$, $R^2 = 0.61$, adjusted $R^2 = 0.58$),

indicating that average perceived support contributes significantly to the overall role of a one-to-

one paraprofessional. More specifically, multiple linear regression results created a model that

can be used to analyze the relationship between variables and predict future outcomes. The

model is able to describe the data 58% better than by looking at the mean (adjusted $R^2 = 0.58$).

When examining which areas are most positively associated with average perceived support, this

model identified average perceived preparation as the only statistically significant predictor of

average perceived support. These results further demonstrate the strong, positive connection

between perceived support and preparation when comparing support to multiple variables that

contribute to the overall role of one-to-one paraprofessionals. From the perspective of one-to-one

paraprofessionals, when examining the overall role of the one-to-one, perceived support

contributes positively to feelings of perceived preparation. Regression analysis allows for a

conclusion that perceived support can predict future perceived preparation.

The multiple regression results for research question 3, shown in Table 14, revealed a

highly statistically significant model ($F = 20.11$, $p(F) < .001$, $R^2 = 0.64$, adjusted $R^2 = 0.61$),

indicating that average perceived communication contributes significantly to the overall role of a

one-to-one paraprofessional. More specifically, multiple linear regression results created a model

that can be used to analyze the relationship between variables and predict future outcomes. The

model is able to describe the data 61% better than by looking at the mean (adjusted $R^2 = 0.61$).

When examining which areas are most positively associated with average perceived

communication, this model identified average perceived feedback as the only statistically

significant predictor of average perceived communication. These results demonstrate the positive

connection between perceived communication and feedback when comparing communication to

multiple variables that contribute to the overall role of one-to-one paraprofessionals. From the

perspective of one-to-one paraprofessionals, when examining the overall role of the one-to-one,

perceived communication contributes positively to feelings of perceived feedback. Regression

analyses allows for a conclusion that perceived communication can predict future perceived

feedback.

The multiple regression results for research question 4, shown in Table 16, revealed a

highly statistically significant model ($F = 14.98$, $p(F) <.001$, $R^2 = 0.57$, adjusted $R^2 = 0.53$),

indicating that average perceived feedback contributes significantly to the overall role of a one-

to-one paraprofessional. More specifically, multiple linear regression results created a model that

can be used to analyze the relationship between variables and predict future outcomes. The

model is able to describe the data 53% better than by looking at the mean (adjusted $R^2 = 0.53$).

When examining which areas are most positively associated with average perceived feedback,

this model identified average perceived communication as the only statistically significant

predictor of average perceived preparation. These results further demonstrate the strong, positive

connection between perceived feedback and communication when comparing feedback to

multiple variables that contribute to the overall role of one-to-one paraprofessionals. From the

perspective of one-to-one paraprofessionals, when examining the overall role of the one-to-one,

perceived feedback contributes positively to feelings of perceived communication. Regression

analyses allows for a conclusion that perceived feedback can predict future perceived

communication.

Lastly, the multiple regression results for research question 5, shown in Table 18,

revealed a highly statistically significant model ($F = 3.45$, $p(F)=.015$, $R^2 = 0.24$, adjusted $R^2 =$

0.17). Though this model is statistically significant, it identified no statistically significant

predictors of average perceived planning. This means that there is an association among the

individual variables, but they were not significant when taken together, indicating much

variability between the variables. When examining which independent variables had most

influence on average perceived planning, this model identified average perceived feedback (β = .35) and average perceived preparation (β = .33). Though these variables were not statistically significant in predicting average perceived planning, they still have more of a positive influence than other factors.

Discussion

Perceived Preparation & Perceived Support Methods

Preparation and support play a major connected role in how a one-to-one paraprofessional will carry out their role in the classroom. When examining participants' responses to survey statements regarding preparation, responses are consistent with previous research highlighting need for further preparation methods (Blatchford et al., 2012a; Blatchford et al., 2012b; Webster et al., 2010). It is important to highlight that 38% of respondents reported that they did not receive a job description at the start of their position and 36% of one-to-one paraprofessionals indicated that they were not informed of any individual educational needs, such as the student's IEP goals or objectives (Table 9). A job description and a description of the student's needs are basic pieces of information that can help a one-to-one paraprofessional be most successful. This is an important finding since New York State requires that one-to-one aides are given job descriptions that are specific to the student's individual needs (Geary, 2016). This is integral information that should be shared with a one-to-one paraprofessional. This information is vital to the success of the student receiving these services and is therefore just as important for the one-to-one paraprofessional to know in order to do their job most effectively.

When examining responses related to perceived support, there was a clear desire for more support from public school personnel. It is important to highlight that 50% of respondents

reported that they had not received professional development in the areas of work habits or

overreliance, 46% of one-to-one paraprofessionals indicated that they did not have access to

ongoing professional development opportunities, and 92% directly indicated that they would like

more support for working with their individual student. It appears that public school districts on

Long Island are not doing enough to support their one-to-one paraprofessionals. Similarly, in

their literature review, Walker and Smith (2005) found one-to-one paraprofessionals were given

professional development opportunities, but the support needs of the paraprofessional were never

considered. Walker (2017), in a follow-up study, also found that paraprofessionals demonstrated

high levels of educational support needs. Specifically, paraprofessionals preferred training

delivered within the school setting, which requires minimal time and involves experiential

learning.

Average perceived support of a one-to-one paraprofessional was found to have a

statistically significant positive effect on the average perceived preparation of a one-to-one

paraprofessional working in a public school district in Long Island, NY and vice versa ($p=.01$).

Averaged perceived support has the most influence on averaged perceived preparation ($\beta=.40$),

where average perceived preparation had a slightly less positive influence on average perceived

support in comparison ($\beta=.38$). This means that the more supported a one-to-one

paraprofessional feels, the more likely they will feel prepared for their role. In addition,

perceived support will influence feelings of perceived preparation more than any other guidance

predictor variable. This information can be used to help public school district administrators

prioritize their support methods and to benefit perceptions of preparedness when working with

special education students. For example, public school districts can prioritize setting up

consistent professional development to support one-to-one paraprofessionals prior to starting

their position and throughout the year. Public school districts can also establish methods to

determine the supports one-to-one paraprofessionals need shall any questions or concerns arise.

Prioritizing support methods will allow for one-to-one paraprofessionals to feel most supported

and prepared. Blatchford et al., 2012a; Blatchford et al., 2012b; Webster et al., 2010) addressed

the need for further preparation methods, by creating a shared time where teachers could

communicate plans with support staff, therefore allowing them to feel more prepared at the start

of the day. This additional meeting time cannot only improve feelings of preparedness, but

feelings of support and communication as well.

Collaborative inquiry can be utilized as a fundamental commitment to improving

outcomes for students through specific preparation and support methods based on their

individual need (Butler & Schnellert, 2012). This framework emphasizes the connection between

preparation and support. In many cases, we find that professional development is used as a

preparation or support method, without specific input from the one-to-one paraprofessional about

what areas or topics they need support (Giangreco & Broer, 2005). This creates a placeholder

support that may not actually be targeting the specific support and preparation needs of the one-

to-one population. Butler and Schnellert (2012) examined collaborative inquiry-based

approaches to professional development and found that they can support positive systemic

change. For example, public school district leaders can send out a quick survey to their one-to-

one paraprofessionals to choose from different topics about which they can receive professional

development and have open-ended questions in the event something novel arises. This allows for

the collaboration of all involved to find a solution that works best for everyone.

Perceived Communication and Perceived Feedback Methods

Perceived communication and perceived feedback are two closely related areas that have significant positive influence on the overall role of a one-to-one paraprofessional, though average perceived communication had a slightly more positive influence on the overall role. The way people communicate is a very important part of any role. Average perceived feedback was found to have a highly statistically significant positive effect on the averaged perceived communication of one-to-one paraprofessionals working in a public school district in Long Island, NY ($p<.01$). Similarly, average perceived communication was found to have a highly statistically significant positive effect on the averaged perceived feedback of one-to-one paraprofessionals working in a public school district in Long Island, NY ($p<.01$). There was a strong connection between communication and feedback, as feedback can be a form of communication. As indicated by multiple regression analyses results, perceived communication can be used to predict perceived feedback and vice versa. This implies that establishing routine methods of feedback will positively influence feelings of perceive communication for one-to-one paraprofessionals.

Looking at responses around communication, 76% of respondents (38) shared that they did not have established meeting times to allow input and collaboration. These results highlight the lack of consistence in meeting times between one-to-one paraprofessionals and those who support them. Additionally, 94% of survey respondents (46) shared that they turned to the classroom teacher or special education teacher for questions or concerns. This demonstrates the lack of consistency in who supports the one-to-one paraprofessional. Some teachers may not feel comfortable or equipped to support a one-to-one paraprofessional. There are many small changes that can be made to open lines of communication and give one-to-one paraprofessionals the

space to ask questions and express their support needs. These findings are consistent with

Rutherford (2011) who acknowledges the complex support requirements for one-to-one

paraprofessionals. Almost half of his sample indicated they received no training for their role and

therefore "operated based on assumptions that, if were incorrect, would do the least harm"

(Rutherford, 2011, p. 109). Similarly, Zobell and Hwang (2020) found that paraprofessionals

reported that the area they felt least satisfied with the amount of support presented through

professional development opportunities with only 23% of the 18 respondents reporting they were

given written expectations about roles and responsibilities when they first began the position.

Findings from the present study are consistent with findings from previous studies. Perceived

methods of communication and preparation methods are lacking for one-to-one

paraprofessionals.

Regarding one-to-one feedback, 42% (21) of people reported that their school has a

method to evaluate the impact of a one-to-one teacher. Additionally, 52% (26) respondents

shared that their supervisor does not perform evaluations based on job descriptions. These

findings are consistent with the research literature that identified a high amount of feedback for

one-to-one paraprofessionals came from the lead general and special education teachers (Barnes

et al., 2021). Researchers pointed out that if this much support is being given by lead classroom

teachers, then lead classroom teachers should be receiving training on how to supervise and

collaborate with their one-to-one paraprofessionals (Barnes et al., 2021). Majerus and Taylor

(2002) also examined relationships and feedback between one-to-one paraprofessionals and lead

teachers. Though Majerus and Taylor (2002) specifically surveyed music teachers, only eight of

the 504 surveyed teachers indicated regular meetings with paraprofessionals or special educators

to discuss goals or strategies. This is consistent with the findings of the present study; one-to-one paraprofessionals can benefit from additional communication and feedback systems.

To further examine the communication and feedback breakdown, Biggs et al. (2016) analyzed educational teams to understand the quality of their professional relationships and what aspects influenced these relationships. They found that an increased focus on positive collaborations created more positive relationships and outcomes for teachers and paraprofessionals (Biggs et al., 2016). In order to develop these relationships, public school districts on Long Island can establish meeting times to increase communication and feedback opportunities. This can look like a morning meeting time at the end of the week among teachers and one-to-one paraprofessionals. During this time, educators can talk about student progress during the week, what was working, what was not, and plan ahead for next week.

Perceived Planning Methods

Planning is an overarching procedure in the field of education that is integral to the success of intervention strategies. Planning should take place on every level from administration to the one-to-one paraprofessionals. It was interesting to find that though the overall model was significant, the individual variables of preparation, support, communication, feedback, and planning were not significant when taken together. This means that there is much variability between these variables but there is still an association among them all. When analyzing all variables contributing to perceived planning, perceived feedback and preparation have less variability with perceived planning. This implies that feedback and preparation methods are better predictors of planning than perceived support and communication. This can be because feedback and preparation methods both include aspects of taking action to benefit the future.

Feedback is given to ensure that the same mistakes do not repeat in the future. Preparation methods provide information and material in advance to help the one-to-one paraprofessional complete the tasks of their job well.

When asked about being a part of an educational team to discuss the one-to-one work assignment, 74% (37) of one-to-one paraprofessionals disagreed or strongly disagreed. In addition, 80% (40) survey respondents disagreed or strongly disagreed when asked if they had the opportunity to give input regarding the student. Lastly, 86% (43) people shared that they are not in communication with the student's family to plan for support. These findings indicate the lack of perceived planning opportunities for one-to-one paraprofessionals and the teachers and families they work with. Howley et al.'s (2017) found that administration pays little attention to the planning for a paraprofessional, identifying difficulties with role identification, assignment, supervision, and training, which are all aspects that contribute to planning for the role of the paraprofessional.

Implications of the Study

Implications of the study are specific to each role involved in working with students who require one-to-one services. The goal of this study was to have a better understanding of the guidance and support requirements perceived by one-to-one paraprofessionals in public schools to develop a plan to address these needs. To address these support needs, several practices are suggested for one-to-one paraprofessionals, cooperating teachers, administrators, and students receiving one-to-one services. These include providing one-to-one paraprofessionals with a job description before they begin the assignment, establishing meeting times among teachers and paraprofessionals, and providing opportunities for formal feedback.

The present research shows there is a significant association between preparation methods and support methods, and communication and feedback processes. This indicates that any of these four areas can be targeted to benefit each of the other areas, therefore these types of guidance measures should be a focus of attention. For example, preparation methods such as providing one-to-one paraprofessionals with a specific written job description can help the one-to-one to feel more prepared and it will also positively improve their feelings of support. The same can happen between perceived communication and perceived feedback. Providing a one-to-one-paraprofessional with more communication opportunities, such as established meeting times and explicit feedback could help the one-to-one paraprofessional to feel positive about their role in the special education classroom. Increasing these feelings for one-to-one paraprofessionals can lead to better outcomes in their positions for one individual student receiving one-to-one services. Public school administrators, teachers, special education teachers can use and implement this information when a paraprofessional takes a position in a public education classroom. These findings also have implication for public school administrators to focus on preparation or support and communication or feedback methods.

One strategy public school administrators can utilize are Professional Learning Communities (PLCs). PLCs can be created to join IEP teams more regularly and provide an efficient means for teachers to communicate quickly and more frequently. PLCs can be helpful for deployment aspects including: (a) ensuring appropriate partnerships, (b) planning appropriate professional development, and (c) including one-to-one paraprofessionals in the planning process (Short et al., 2018). A public school district can set up meeting times with established PLCs to discuss students receiving one-to-one services. This provides background and more global information and would allow one-to-one paraprofessionals to have further input and information

to assist them with their special education student. According to social cognitive theories one-to-one paraprofessionals develop, adapt, and change their practices through observational learning and modeling to produce certain behaviors (Vinney, 2019). Allowing one-to-one paraprofessionals to meet with other educators working with their assigned student allows more opportunity for observation, feedback, and recommendations to implement in their practice. This provides a well-rounded view of the student and emphasizes the importance of a team approach and interplay among cognition, behavior, and the environment (Bandura, 1986). Parties involved can have different knowledge about the student, some behaviors are displayed at different times of day, and people can change their behavior depending on the environment. PLC meetings could clarify all areas of preparation, support, communication, feedback, and planning.

Second, the findings of this study can lead to transformational leadership opportunities for public school administrators. Transformational leadership is a process where leaders and in turn, those they lead, create a positive system of motivation through direct action and modeling. This leadership approach organically provides a positive change. The implementation of PLCs can promote positive change for all of those involved. Transformational leadership opportunities as such can also enhance motivation, morale, and performance (Bass & Avolio, 1994). It would also be beneficial for public school district administrators to become more familiar with implementation science. Implementation science emphasizes the use of evidence-based practices (EBPs) into routine practices in order for quality and effective services (Bauer et al., 2015). Moir (2018) defines implementation science as "the study of components necessary to promote authentic adaptation of evidence-based interventions, thereby increasing their effectiveness" (p. 1). Implementation science is a study of strategies and methods that aid in the onboarding of an evidence-based practice into typical, everyday use. Approaching the change in this manner, will

allow public school administrators to guide one-to-one paraprofessionals to do what research

demonstrates is best. This approach ensures that careful attention is given to all aspects of the

implementation approach. To do so, a recommended strategy is before any change begins, to

write down what it is that needs to change, and in what ways. This approach also requires those

involved to analyze the intervention approach through various levels such as the intervention

itself, setting, those involved, and what the process of accomplishing looks like in the

intervention. To ensure these types of conversations occur, public school districts can create a

PLC specifically dedicated to the implementation of desired supports. Implementation science

can also be incorporated into the design and evaluation of professional development for school

districts. This practice will allow for meaningful choices to be made to impact targeted needs.

Last, results can lead to implications for New York State Department of Education. A

large percentage of respondents shared that they were not prepared for their role in a manner that

the New York State Department of Education requires. New York State Department of

Education requires that one-to-one paraprofessionals are provided with a job description that

specifically outlines the needs of the individual student (Geary, 2016). In the present study, a

majority of respondents reported that they did not receive a job description. Though this is not

the fault of the New York State Department of Education, there seems to be a lack of oversight

to ensure that these regulations are being followed. This is a large task for NYSED, but there are

special education quality assurance offices in each region of New York to aid with the role.

NYSED can utilize their regional quality assurance offices to ensure that regulations around one-

to-one paraprofessionals are being met.

Most important are the students who receive one-to-one services. The student who

receives one-to-one services are ultimately the most important stakeholders. These students will

benefit most from the results of this study by providing those who teach and support them with the proper preparation tools, support, communication methods, feedback, and planning time.

Limitations and Benefits

Despite the strengths of the current research, there were limitations. First, this study employed a convenience sample of one-to-one paraprofessionals on Long Island. The sample size of 50 participants was not large enough to be fully representative of all one-to-one paraprofessionals working in public schools in Long Island, New York. The survey was sent to all public school district special education administrators through Long Island University C. W. Post's Center for Community Inclusion. One month after distribution, only 20 one-to-one paraprofessionals had participated in the study. To gain more participation, the study was shared via word of mouth for one additional month.

It is interesting to note that there were not many responses when the survey was shared with public school administrators, but there was more interaction with the survey link when later shared directly with one-to-one paraprofessionals. Though it was an anonymous survey, it may not have been shared with one-to-one paraprofessionals because administrators could have been worried about revealing a weakness. If a district knows that they do not give much attention to one-to-one paraprofessional supports and guidance, they may not want to share a survey with their one-to-one staff that highlights these supports.

There are some limitations with the use of survey research. There is always some bias present when using self-reported instruments due to limitations of perceptions. Researchers analyzed the limitations of 1,276 published articles that utilized self-reported data and reported concerns surrounding internal and external validity (Brutus et al., 2013).. Internal validity

examines whether a study answers its research questions without bias, while external validity examines whether the study findings can be generalized.

There are also limitations surrounding external validity, specifically coverage bias, which explains when a segment of a population is improperly excluded from the sample or unavailable through data collection methods (Blair & Blair, 2015). The survey was distributed through email to all public school special education administrators. Based on the timeline of responses, there were approximately 20 responses from that distribution email. Then, the researcher shared the study via word of mouth with paraprofessionals in Nassau County, Long Island, it is possible that the data responses are more representative of Nassau County than Long Island as a whole. Therefore, it is a limitation in coverage bias because of the lack of data from both Nassau and Suffolk Counties.

Though there were some limitations in the present study, there were benefits that come from the results. Results from this study represent real word perceptions that are specific to Long Island, New York. This feedback can be utilized to address the specific needs of these one-to-one paraprofessionals in public schools. One benefit is the more specialized support a one-to-one paraprofessional receives; they will be better prepared to service the students they are working with. Another benefit of this study is that it provides administrators with information that can promote positive change. All stakeholders involved benefit when the needs of one-to-one paraprofessionals are met, administration has a well-rounded staff, and most importantly, students will have impactful and effective support.

Recommendations for Future Researchers

This investigation opens a number of research possibilities to further explore how one-to-one paraprofessionals can be enhanced within public schools. One-to-one paraprofessionals can be further surveyed about specific kinds of professional development opportunities they found to be the most effective, as well as the frequency of opportunities offered. This information can be used to determine a better action plan for one-to-one paraprofessionals that service special education students.

The present study did not survey one-to-one paraprofessionals about preparation materials, support, communication methods, systems of feedback, and planning opportunities. This information can be utilized to gain a better understanding of how one-to-one paraprofessionals can be supported most effectively. Each research question provided opportunity for steps toward positive change in that specific area. For example, regarding preparation methods, there are many questions to be answered. How do preparation materials impact performance? What kind of preparation materials are one-to-one paraprofessionals provided with? Is there an orientation at the start of each year to prepare one-to-one paraprofessionals? In the area of support, how often are one-to-one paraprofessionals provided with professional development or support opportunities? How do these kinds of supports impact performance? Future research could examine communication by assessing who and the frequency in which one-to-one paraprofessionals communicate with other staff members. The present study presented various challenges faced by one-to-one paraprofessionals; future research can be done to find the next steps to fix the highlighted changes.

Future research can compare different demographic information. It would be interesting to see if preparation was perceived by a one-to-one paraprofessional who has worked in the position for 10 years versus someone who has worked in the position for two. It would also be interesting to see if perceptions of support were different between one-to-one paraprofessionals that have college degrees compared to those who had very little training.

There may be a difference in the preparation, support, communication, feedback, and planning based on the environment the one-to-one paraprofessional works in as well. Is there more support in a self-contained classroom as opposed to an inclusion classroom? A wider variety and intensive supports are typically required in a self-contained classroom (Östlund et al., 2021). This area would be another beneficial area to explore to improve specialized supports for one-to-one paraprofessionals and therefore the students they service. For example, if one-to-one paraprofessionals in the self-contained classroom received training or information about fading techniques, it would be interesting to see if student independence would increase in the areas where it can. Examining supports that are specific to location will only help to improve the supports more authentically.

Conclusion

It is important that schools district administrators are reflecting on the practices and providing the appropriate supports for their one-to-one paraprofessionals. This study ends with a discussion of the findings related to preparation, support, communication, feedback, and planning methods.

Positive statistically significant multiple regression models were found to represent perceived preparation, support, communication, feedback, and planning. Perceived preparation,

support, communication, feedback, and planning all contribute significantly to the overall role of one-to-one paraprofessionals in public school districts on Long Island. This study intended to prioritize support and guidance topics to determine which areas of preparation, support, communication, feedback, and planning contribute most meaningfully to the overall role of a one-to-one paraprofessional. Multiple linear regression results of this study suggest that by making positive changes in the areas of preparation, support, communication, feedback, and planning for one-to-one paraprofessionals in public schools, one-to-one paraprofessionals will experience positive change in their perceptions of these areas. Consequently, one-to-one paraprofessionals may be more open to the development of knowledge and skills to better support the students they service. The study signifies the importance of preparation and support methods such as providing one-to-one paraprofessionals with written job descriptions and specific professional development opportunities. Research supports that utilizing PLCs can be a way to increase positive feelings of preparation, support, communication, feedback, and planning. In addition, results highlight the importance of communication and feedback. The utilization of implementation science in areas of professional development support can be beneficial for existing practices that are already in place.

When working with one-to-one paraprofessionals, we now know that preparation and support go hand in hand, along with communication and feedback being just as connected. These are important areas for public school administrators to focus on when preparing their one-to-one paraprofessionals for the upcoming school year. Focusing on these areas will also allow for public school administrators to demonstrate transformational leadership opportunities to promote positive change for one-to-one paraprofessionals. Preparing, supporting, communicating with, and including one-to-one paraprofessionals in conversations will only strength their roles and

skills in supporting schools most vulnerable students. Improving the guidance and support for

one-to-one paraprofessionals improves the guidance and support for special education students

receiving individualized services.

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APPENDIX A
LETTER TO ADMINISTRATORS

Good Afternoon,

I am reaching out to enlist your assistance in gathering participation for my dissertation study titled, *Guidance and Support for One-to-One Paraprofessionals*. I am conducting research on the perceptions of one-to-one paraprofessionals in relation to their professional preparation, support, communication, involvement, and feedback they receive in varying public-school districts. The purpose of my study is to identify specific areas where one-to-one paraprofessionals require guidance and support for working with students with special needs in the public-school setting. The instrument used is a 20-question Likert scale survey of preparation, support, communication, involvement in planning, and feedback toward their role with their assigned student.

This email is one method of outreach I am using to connect with my target audience. I am hopeful you will be interested recruiting your one-to-one paraprofessionals to participate in this study by informing them of this opportunity and sharing the link to the survey. Participation in the study is completely voluntary and confidential. No personally identifying information is collected through the survey and participation only requires about 15 minutes. If you have any questions regarding this research project, the survey or any questions in general, please do not hesitate to contact me at amanda.agurkis@my.liu.edu, or Dr. Lynn Cohen, my dissertation chair, at lynn.cohen@liu.edu. Please respond via email (amanda.agurkis@my.liu.edu) to inform if you are willing to share my Likert-scale survey to your one-to-one paraprofessional staff. Thank you in advance for your consideration and collegial assistance.

Sincerely, Amanda Agurkis

APPENDIX B

PARTICIPANT CONSENT FORM

Principal Investigator: Amanda A. Agurkis

Dissertation Chair: Lynn Cohen, Ph.D.

LONG ISLAND UNIVERSITY / POST CAMPUS

<u>Informed Consent Form for Human Research Subjects</u>

Dear One-to-One Staff,

You are being asked to participate in a research study titled, *Guidance and Support for One-to-One Paraprofessionals,* conducted by Amanda Agurkis, a doctoral candidate in the College of Education, Information, and Technology's (CEIT) Doctorate in Transformational Leadership Program at Long Island University, Post Campus. This research project is being supervised by Dr. Lynn Cohen, Professor in the CEIT. The purpose of the study is to identify specific areas where one-to-one paraprofessionals require guidance and support for working with students with special needs in the public-school setting.

You will be asked to complete a Likert-scale survey about preparation, support, communication, involvement in planning, and feedback regarding your role as a one-to-one paraprofessional, teaching assistant, or teacher's aide. The survey will require approximately 15-20-minutes to complete. In addition, the survey is voluntary, anonymous, and you will not be asked for your name, your school district of employment, or any identifying information. Any data provided will be anonymously kept by the Qualtrics Learning Tools software program. There is no compensation for responding nor are there any known risk. At the end of the survey,

you will be asked to grant permission for me to use your responses in my doctoral dissertation and other publications.

Any questions about the research or if you would like a copy of the results, please contact the student investigator, Amanda A. Agurkis at amanda.agurkis@my.liu.edu, the faculty advisor, Dr. Lynn Cohen at lynn.cohen@liu.edu, or the doctoral department chairperson, Dr. David Bennardo, (516) 299-2267. The study is awaiting approval by the LIU/Post Institutional Review Board. If you have any questions concerning your rights as a research participant please contact Draco Forte, (410-884-2900), the Interim Institutional Review Board Administrator at LIU/Post. Thank you for taking the time to assist me in my educational endeavors. The completion and return of the survey will be accepted as your agreement and understanding to participate in this research. The data collected will provide useful information regarding one-to-one paraprofessional support and training in public schools on Long Island.

Amanda A. Agurkis, M.S., A.B.D.

APPENDIX C

ONE-TO-ONE PARAPROFESSIONAL LIKERT-SCALE SURVEY

		Strongly Disagree	Disagree	Agree	Strongly Agree
	Question	**1**	**2**	**3**	**4**
1	I received an accurate job description that outline the various roles and responsibilities for which I am responsible.				
2	I received information about my assigned student, classrooms, and school.				
3	I was explained my role and responsibilities and was given guidance on working directly with my specific student.				
4	I was informed of the educational needs (e.g., Individualized Education Program [IEP] goals and objectives) and characteristics of the student with whom I am working.				
5	I receive training or professional development about work habits that promote student independence (when appropriate), and prevent unintended negative effects often associated with over-involvement or over reliance on adults.				
6	I receive training or professional development in relevant areas such as applied behavioral analysis, supporting students with specific disabilities, challenging behaviors, and supportive technology.				
7	I have access and options to ongoing learning opportunities. These opportunities include professional development such as workshops, courses, and meetings with specified staff members.				
8	I would like more support for working with my student, such as training for supporting the implementation of individualized education programs and behavioral plans, facilitating learning activities, collecting student data, providing personal hygiene supports, etc.				

9	If I have any concerns about my student or my role, I typically do not voice them and figure it out for myself.				
10	In my school, there are established meeting times to allow one-to-one paraprofessionals to be familiar with teacher plans, report progress, express concerns, ask questions, and provide input.				
11	I have a supervisor that can answer questions for me and provide clarification and guidance when needed.				
12	I typically turn to the lead teacher or special educator if I have any questions or concerns.				
13	My school has a method to evaluate the impact of one-to-one paraprofessional services on individual students, classrooms, and involved staff members.				
14	I receive regular feedback from the teacher and/or special educator to best support my assigned student.				
15	My supervisor performs performance evaluations that are based on individual job descriptions.				
16	I receive formal written feedback regularly (e.g., at the end of the year).				
17	I am a member of an educational team including general education teachers, special education teachers, related service providers, parents, and the student (when appropriate) which joins to discuss student progress and the one-to-one paraprofessional work assignment.				
18	My input is valued in meetings about student progress, placement, and day-to-day situations.				
19	I have the opportunity to give input into the development of individualized education plans, instructional plans and activities developed by an educational team.				
20	I am in communication with my assigned student's family to best plan for my support.				

APPENDIX D
HUMAN SUBJECT RESEARCH DETERMINATION FORM

LONG ISLAND UNIVERSITY
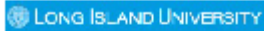
View xForm - Human subject research determination form

Use this form to determine if your project is human subjects research that requires IRB approval. Make sure to read each question carefully. Contact the IRB Administrator with any questions (osp@liu.edu).

HS determination data entry
- Submitted 05/08/2022 9:44 PM ET by Amanda Agurkis
Project information

Submitter

Amanda Agurkis
         Email: Amanda.Agurkis@my.liu.edu   **Phone:**

Are you a student?

Yes

Who is your faculty advisor?
Lynn Cohen

If the screen shows "No Results Found" when trying to add your advisor in the answer above, it's possible they are not yet a contact in LIU's IRBManager. Contact your advisor and ask them to log into IRBManager using their LIU credentials (https://liu.my.irbmanager.com).

Project Title

Guidance and Support for One-to-One Paraprofessionals

Please provide a short project description.

Use a few sentences to briefly describe your project's purpose, procedures (e.g., surveys), and sample population.

This dissertation extends the research on methodology by investigating the perspectives of one-to-one paraprofessionals working in public schools on Long Island on preparation, support, communication, feedback, and involvement in planning. These areas will be explored using 20 statements on a Likert-scale survey. Demographic information of participants include age, gender, age level of student, passage of the Assessment of Teaching Assistant Skills (ATAS), years of experience in education, type of class student is in, and professional preparation. Results from this study will provide insight into areas in which one-to-one paraprofessionals need support and guidance. This information will help administrators provide support for one-to-one paraprofessionals and the students they assist.

Where will the project take place?

K-12 Schools	*Contact the IRB Administrator if your project site isn't listed.*

Will you, or a member of your project team, observe, interact with, or intervene with individuals to gather information?

No	*Choose "NO" if your project will only use existing data.*

Secondary data analysis

Are the data/specimens about or from individuals who are or may be living?

Yes	*Choose "NO" if materials are from cadavers or data are about deceased individuals.*

Are the biospecimens/information:

- **Human cell lines obtained from a commercial provider?; OR**
- **Human cells about which all information has been published; OR**
- **Unidentifiable information/biospecimens obtained from a commercial provider; OR**
- **Unidentifiable information/biospecimens obtained from a provider that is prohibited from releasing identifiers by established regulations or policies?**

No

Were/will the specimens/data (be) collected specifically for the proposed research through an interaction or intervention with living individuals?
No

Can you as the recipient link the information/biospecimens directly to identifiable private information of living individuals?

Identifiable private information is private information for which the identity of the participant is or may be readily ascertained by the investigator or associated with the information.

No

Can the data provider link the specimens/information directly to identifiable private information of living individuals?
No

Not human participant research. No IRB application is required. You will receive a "Not Human Subjects Research" determination letter. Make sure you click "Next" below and then "Submit" on the following page.