How Speech Pathologists' Caseloads Impact Employee Effectiveness in Public Schools

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Dedication

To my daughters, Bethany and Ashley Winnor, thank you for supporting my professional growth. As you both embark upon higher education in the coming years, I hope that you find the same love for learning that I have.

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Abstract

Speech-Language Pathologists (SLPs) working in schools report struggling to provide high-quality support and services to their students, given their workload and the limited time available during the school day. School administrators, in turn, are challenged to assign caseloads to professionals that ensure students receive the support and services required to obtain a meaningful educational benefit in a fiscally responsible manner. The design of this action research attempts to understand the impact of caseload numbers and workload on the practices and professionals to guide school administrators. This research study focused on school-based speech-language pathologists employed in Westmoreland County, Pennsylvania, public schools. Participants collected caseload data and workload data during designated periods over six months. Participants also completed a survey that analyzed their perceptions of their effectiveness related to specific job responsibilities. To determine which model, a caseload, or a workload model, more accurately predicted a speech-language pathologist's perceived effectiveness, workload data, caseload data, and survey results were compared and analyzed. Data analysis also addressed caseload numbers' impact on specific required and recommended job responsibilities. Findings indicate a lack of relationship between caseload and workload compared to speech-language pathologist perceptions of job effectiveness. A relationship was also not found when comparing caseload with the required direct instruction or compliance practices. However, a statistically significant negative correlation was found when comparing caseload and the recommended interprofessional practices and professional development practices.

CHAPTER I

Introduction

Background of the Study

The researcher has served as the Westmoreland Intermediate Unit's (WIU) itinerant services supervisor for nine years. Before this administrative position the researcher served as a speech-language pathologist in public education for eleven years. During this time the researcher witnessed the roles and responsibilities of school-based speech-language pathologists (SLP) increase due to expansion of the scope of practice, changes in the student population, and changes in the legal mandates and case law that guide public education. Historically, educational administrators have relied on caseload maximums established in the Pennsylvania School Code to manage the workload of a school-based speech-language pathologist.

As the WIU's itinerant services supervisor and a speech-language pathologist, the researcher understands the challenges SLPs in school-based settings face as they attempt to provide high-quality supports and services to students. As an administrator, the researcher also identifies the need for district's special education directors to deliver cost-effective services to meet the needs of all students. The caseload model employed by many states, including Pennsylvania, does not allow administrators to effectively analyze the workload placed on each SLP but instead uses student enrollment as the only form of data collection to determine workload. Pennsylvania limits the caseload of the speech-language pathologist to 65 students (Public School Code, 1949). The American Speech-Language and Hearing Association; however, advocates for school districts to consider using a workload model rather than a caseload model to enhance the quality of

instruction for students and facilitate the student's ability to make meaningful progress. Limited data or guidance currently exists to provide administrators with evidence that a workload model is more effective and results in improved instructional effectiveness.

Identification of Capstone Focus

Speech-Language Pathologists in school-based settings are required to provide high-quality supports and services to students while complying with the increase demands of education. This capstone research project will focus specifically on speech language pathologists; however, the implications for the research findings could be applicable to all itinerant service providers in the school setting. District special education directors and administrators are required to provide cost-effective services to meet the needs of all students. This frequently leads to speech language pathologists providing supports and services to students that near the established caseload maximum of 65 (Public School Code, 1949). SLPs are reporting being overwhelmed by their workloads which could negatively impact the effectiveness of their instruction.

The caseload model employed by the Intermediate Unit and school districts in Westmoreland County does not provide administrators with the ability to effectively analyze the workload placed on each SLP but rather uses student enrollment as the only form of data collection to determine workload. This capstone project is designed to understand the relationship that caseload numbers and workload may have on the employees' practices and their perceptions of their job effectiveness.

Research Questions

The following questions will examine the impact of speech language caseloads and workloads in public schools:

1. What are school Speech Language Pathologists' perceptions of their job effectiveness in relation to their caseload vs. workload?
2. How does a Speech Language Pathologist's caseload impact the employees' amount of time spent engaging in required job responsibilities, specifically direct instruction and compliance related job functions?
3. How does a Speech Language Pathologist's caseload impact the employees' ability to complete recommended job responsibilities, specifically interprofessional practice and professional development?

Expected Outcomes

Special education administrators are tasked with operating programs that provide effective instruction, address each student's individual needs, and ensure meaningful educational benefit. Administrators must do this in the most cost-effective manner as the cost of special education continues to rise. The results of this study will provide special education administrators with guidance on the most effective way to manage speech-language pathologists' caseloads and workloads to maximize productivity while ensuring that students receive effective instruction to meet their needs and foster growth.

Fiscal Implications

The fiscal implications of this capstone research project primarily consist of the associated cost of salaries and benefits for the participants as it corresponds to the time required to complete the weekly workload analysis and perceptions survey. Each

participant will be asked to complete the American Speech Language Hearing Association's Weekly Workload Calculator for six designated weeks during the school year. The daily collection and recording process will require approximately one hour per data collection week of each participant's time. Each participant will also be asked to complete an online survey in Google Forms, which will take 5-10 minutes in March of 2022. Given that participants are employed or assigned to the seventeen school districts in Westmoreland County the cost of participation will be dispersed across the districts that volunteer. The research will utilize the American Speech-Language Hearing Association's free online weekly workload calculator to collect data as well as Google Forms and AdobeSign. These data collection tools will be used at no additional cost to the Intermediate Unit or districts. All costs associated with the capstone project are indirect and the overall financial impact for an individual school district will be minimal.

Summary

Chapter I introduced why studying workload and caseload models of management are important for SLP and special education directors to ensure students receive effective instruction. Chapter II will provide a literature review to develop a comprehensive understanding of research currently available to guide practice. Chapter III will explain the methodology used to investigate and research the caseload, workload, and the impact on instructional effectiveness. Data analysis and results will be presented in Chapter IV. Chapter V will summarize the final conclusions, the impact on current practices and recommendations for future research.

CHAPTER II

Literature Review

Over the last fifty years the scope of practice for school-based speech-language pathologists (SLPs) have expanded in response to evidence-based research, educational reform, and legal mandates. As speech-language pathologists' roles and responsibilities increase SLPs must prioritize responsibilities to ensure students receive appropriate instruction that results in meaningful educational benefit. In addition, trends within the field indicate an increased need for speech-language pathologists in school-based settings and rising vacancies. As a result district administrators are challenged to recruit, retain speech-language pathologists, and manage their workload. Historically, many states used caseload guidelines to set workload expectations; however, in recent years, the American Speech-Language Hearing Association (ASHA) has advocated for workload analysis to be implemented. Administrators need to adopt appropriate models that will monitor and analyze the workload expectation that results in effective caseload management and retain SLPs in schools to ensure student success.

Speech Language Pathologist Roles and Responsibilities in Schools

The American Speech-Language-Hearing Association (ASHA) is the national professional organization responsible for research in the field and accreditation. ASHA's mission is, "Empowering and supporting audiologist, speech-language pathologist and speech-language and hearing scientists through advancing science, setting standards, fostering excellence in professional practice and advocation for members and those they serve" (American Speech-Language-Hearing Association [ASHA], n.d.-e). ASHA was founded in 1925 by members of the National Association of Teachers of Speech to

advance scientific research. Over the last 94 years the profession of speech language pathology has expanded significantly to include over 218,000 members and affiliates who have a broad scope of practice that serves individuals from birth to death in various settings (ASHA, n.d.-f) As the leading professional organization, ASHA develops Ad Hoc Committees responsible for setting policy statements known as professional issue statements.

Overview of Roles and Responsibilities

ASHA (2010) revised previous guidance due to expanding practices of speech-language pathologists in schools. The *Roles and Responsibilities of Speech-Language Pathologist in Schools* was authorized by ASHA's board of directors to "promote efficient and effective outcomes for students" (ASHA, 2010). ASHA's guidance for school-based SLPs focuses on critical roles, ranges of responsibilities, collaboration, and leadership. Each area provides updated guidance for school based SLPs from the previous professional issue statement approved by ASHA's board of directors in March 1999 (ASHA, 1999). By comparing the guidance provided to school-based SLPs in 1999 with the current professional issue statement, one can quickly identify the expansion of roles and responsibilities for school-based SLPs. Guidance for school based SLPs outlines six critical roles: working across all levels, serving a range of disorders, ensuring educational relevance, providing unique contributions to curriculum, highlighting language and literacy, and providing culturally competent services (ASHA, 2010). The 1999 professional issue statement addressed critical roles; however, language development's impact on literacy and academic success was discussed as a component of language disorders (ASHA, 1999). ASHA shifted the focus of its guidance in the 2010

professional issue statement, in which ASHA elevated literacy to a critical role (ASHA, 2010) rather than a component of the scope of language intervention (ASHA, 1999).

The ASHA (2010) professional issue statement also outlined the responsibilities of a speech-language pathologist in schools that continued to align with the 1999 guidance regarding assessment, intervention, program design, data collection, and compliance. The 2010 guidance also highlighted changes regarding the school-based SLP responsibilities. For example, the SLP has a more significant commitment to preventing students from failing academically (ASHA, 2010). In the 1999 professional issue statement the SLP's role regarding prevention was limited to training others through in-serving and conferencing (ASHA, 1999). The 2010 professional issue statement expanded the scope of speech language pathologists to be integral members of district initiatives focused on preventing students from failing by employing evidence-based practices, including Response to Intervention (ASHA, 2010). Although tier one level of support may look like the responsibilities outlined in 1999, the speech-language pathologist's role in the 2010 guidance includes providing direct intervention services to students not eligible for special education through early intervening services (ASHA, 1999; ASHA, 2010).

Another critical responsibility ASHA outlined professional issue statement for school-based speech-language pathologists emphasized the need for collaboration (ASHA, 2010). With the educational shift to supporting eligible students in the least restrictive environment, the speech-language pathologists collaborate with more general education professionals as an integral part of the Individualized Education Program (IEP) team. Although the need to collaborate to support students with special needs has

remained consistent over the last twenty-five years, special education has experienced a shift regarding the location of services due to the educational benefits student's experience being educated in the least restrictive environment with their typical peers (Williamson et. al., 2019). As IEP teams grow and diversify SLP must ensure effective collaboration with a greater number of individuals to effectively use evidence-based instruction and interventions that meet the needs of students and foster meaningful educational benefit.

To further outline the roles and responsibilities of the speech-language pathologist, ASHA also highlights the need for lifelong learning in the professional issue statement (ASHA, 2010). As an accrediting organization, the American Speech-Language-Hearing Association requires speech-language pathologists to obtain 30 certification maintenance hours or 3.0 ASHA CEUs to maintain certification over a three-year interval (ASHA, n.d.-g). The focus on mandatory professional development emphasizes the need to continually expand knowledge of research and ensure understanding of changes in the field to enhance individual practices and facilitate evidence-based instruction and interventions for students.

The American Speech-Language-Hearing Association continues to focus on research and evidence-based practices to guide speech-language pathologists, audiologists, and hearing and speech scientists through the published professional issue statements and serve as serving as the national professional organization responsible for research in the field and accreditation. In addition to aligning with research in speech-language pathology, ASHA's professional position statements are also founded in the legal mandates and influenced by educational reform. Therefore, to understand the roles

and responsibilities of a speech-language pathologist, one must understand the impact of educational reform over the last fifty years and the effects of case law and legal mandates.

Education Reform and Legal Mandates

As the United States approached the 21st century, researchers and educators identified a growing concern that public schools were not adequately preparing our students for postsecondary education or employment. The United States was falling behind other developed countries with regards to students being ready for the workforce (United States Department of Education, 1994). Bill Clinton signed The Goals 2000: Educate America Act (1994) that set standards for public education to meet by the year 2000. Goals of the Educate America Act were not all achieved by the 2000 deadline; however, the act was the foundation for revisions to the Elementary and Secondary Education Act (2015). The enactment of the No Child Left Behind Act (2001) focused on closing the achievement gaps and significantly increasing accountability at the state and local levels. No Child Left Behind Act placed pressure on schools to ensure that all students succeeded by requiring standardized assessments as an accountability measure. President Obama signed Every Student Succeeds Act (2015) to also focus on closing the achievement gap for disadvantaged or high-need students. It also continued to require accountability at the state and local levels. Every Student Succeeds Act (2015) drives practices in education at the local building, local district, and state level, with data related to accountability reported to the federal government annually to monitor progress. The roles and responsibilities of speech-language pathologists in schools, as outlined in ASHA's 2010 professional issue statement, align with federal regulations of Every

Student Succeeds Act and support SLPs ability to be an integral part of the educational team focused on student success (ASHA, 2010).

To further understand the roles and responsibilities of speech-language pathologists in schools, the impact of special education case law and federal legislation needs to be considered. The U.S. Supreme Court ruled on *Brown vs. Board of Education* (1954) which found that racial segregation in school is unconstitutional. Although this court case did not specifically target students who received special education, it did abolish the practice of segregated schools and the belief that separate but equal schools were constitutional. *Brown vs. the Board of Education* laid the groundwork for the Supreme Court ruling in *PARC vs. the Commonwealth of Pennsylvania* (1971). The Pennsylvania Association for Retarded Children (PARC) brought suit against the state, claiming that state laws supported school districts' ability to classify students as "uneducable" and "untrainable." The ability for school districts to make this determination resulted in denying students with significant needs access to education. All parties agreed to a consent decree that requires the states to provide all students with mental disabilities (intellectual disabilities) a publicly funded education (*PARC vs. the Commonwealth of Pennsylvania*, 1971). Two years later the federal government authorized Section 504, Rehabilitation Act (1973) as civil rights legislation protecting individuals with disabilities by prohibiting all organizations, including schools, who receive federal funding from discriminating against individuals with disabilities. Section 504 required schools to provide medically necessary services to students to access their education, including the requirement to provide related aids and services such as speech-language therapy (Rehabilitation Act, 1973).

PARC vs. the Commonwealth of Pennsylvania was a driving force for the Education for All Handicapped Children Act of 1975 (P.L. 94-142) which mandated that schools provide a free and appropriate public education for students in the least restrictive environment. P.L. 94-142 had a significant ramification on general education, specifically special education. Not only were schools required to provide free public education, but they were now also mandated to ensure that students' education appropriately met their educational needs. P.L. 94-142 also required that students' education be provided in the least restrictive environment, highlighting the benefits of students being educated with their typical peers (Education for All Handicapped Children Act, 1975). The requirement for school districts to provide a continuum of supports and services in various educational environments drastically impacted the practice of busing students with special needs to special schools or classrooms. The focus shifted to educating students with special needs through inclusive practices. P.L. 94-172 was reauthorized as the Individuals with Disabilities Education Act – IDEA (1997) and again Individuals with Disabilities Education Improvement Act IDEIA (2004), which further mandates special education.

Critical factors of IDEA and IDEIA that guide the roles and responsibilities of speech-language pathologists in schools include a focus on participation in the general education curriculum, requirements to provide supplementary aids and services in general education classroom, a focus on preparing for a student to transition to postsecondary education or the workforce, and the provision that special education could spend up to 15% of their funds on early intervening services (ASHA, 2010). These changes were pivotal to the field of speech-language pathology. ASHA's professional issue statement

provides guidance for speech-language practice based on research and legislation (ASHA, 2010).

When American Speech Hearing Association (ASHA) was founded in 1947, the role of school-based speech-language pathologists primarily focused on articulation, voice, and fluency disorders. Over the next thirty years, the focus on research prompted the organization to expand its scope of practice. As a result, ASHA rebranded the organization as the American Speech-Language-Hearing Association (ASHA) in 1978 (ASHA, n.d.-f) due to the speech-language pathologist's role in diagnosing and providing interventions for language disorders. Since that time the professional practice has continued to expand for speech-language pathologists in school-based settings. ASHA's 2010 professional issue statement notes that the field has experienced significant growth in multiple practice areas since the 2000 guidelines were published. These topics include: “augmentative/alternative communication, autism, cochlear implants, and traumatic brain injuries" (ASHA, 2010). The expansion of the scope of practice resulted from many factors, including the changes discussed related to education reform and changing student populations.

Expanding Scope of Practice

Over the last 30 years, schools have experienced an increase in the number of medically fragile students that they educate (American Federation of Teachers, 2009). The increase, in part, is due to the advancements in the medical field. The Centers for Disease Control and Prevention (n.d.) reported one out of ten infants born was premature. The Center for Disease Control and Prevention (n.d.) also reports that children born before 37 weeks of gestation frequently experience "breathing problems, feeding

difficulties, cerebral palsy, developmental delays, vision problems and hearing problems." Schools are responsible for providing an education to students with complex needs in the least restrictive environment, which results in an increasing demand for health-related service providers, including speech language pathologists. The Supreme Court ruled in the *Irving Independent School District v. Tatro* (1984) suit clarifying that schools were responsible for providing medical services as related services to meet students' needs and support their ability to access their education. Speech-language pathologists' roles and responsibilities in schools expanded accordingly to address feeding and swallowing, which was traditionally the medical SLP's role. Instruction frequently requires increased time for direct instruction and team collaboration, given the needs of medically fragile students.

In addition to expanding the speech-language pathologist roles and responsibilities related to servicing medically fragile students, the field has also experienced an increased demand for the speech-language pathologist to engage in district initiatives focused on providing early intervening services. Specifically, SLPs have increased responsibility to support literacy as curriculum consultants and offer direct services to at-risk students through Response to Intervention (RTI). In addition, with the implementation of the No Child Left Behind Act of 2001, a school district had new requirements and accountability measures to increase academic achievement for all students, focusing on implementing evidence-based instructional strategies and closing the achievement gaps. Further the reauthorization of IDEA (2004) granted school districts the ability to use special education funding to support at risk students. These legislative

changes in the field directly impacted the expanded roles and responsibilities of school-based speech-language pathologists.

As the leading accreditation and research association in the United States, the American Speech-Language-Hearing Association guides the practices of speech-language pathologists. Over the last twenty years research in the field and changing legislation have expanded the scope of practice of speech-language pathologists. As a result, speech-language pathologists continue to prioritize their roles and responsibilities to meet the needs of those they serve. Amir et al. (2021) found that 1/3 of speech-language pathologists surveyed reported that they felt they could not sufficiently meet students' needs. To understand the impact on the profession one must better understand the difference between required and recommended responsibilities.

Required vs. Recommended Practices for SLPs in Schools

Work-related tasks fall into two groups when analyzing the roles and responsibilities of a speech-language pathologist in schools: required and recommended practices. Required practices are job responsibilities where speech-language pathologists are held accountable through legal mandates. The target of this research will focus on two specific areas: service delivery and compliance. Recommended practices are the professional responsibilities that research suggests are needed to provide high-quality supports and services to students but lack the same level of accountability as required practices. In addition to the required practices, interprofessional practices and professional development will be targeted. Although professional certifications and licensure do require a certain amount of professional development, speech-language pathologists typically engage in these activities outside the workday due to the workload.

Therefore, to fully understand the roles and responsibilities of a speech-language pathologist in schools, both required and recommended practices must be considered.

Required Practices for SLPs in Schools

Service Delivery. Speech and language intervention in the school can be provided using a variety of service delivery models. Individualized Education Program (IEP) teams are required to analyze the needs of each student and determine the most appropriate service delivery option. For example, supports and services could be provided through direct instruction or a consultative model. Instruction also varies based on if the student requires individual intervention or group intervention. The location of service, the frequency, and the duration of service also vary for individual students. The Individuals with Disabilities Education Act (1990) mandates that all students with disabilities receive a free and appropriate public education in the least restrictive environment with supplemental aids and services, if needed. To ensure that each student's educational needs are met, IEP teams must select the most appropriate service delivery model.

Both federal and state laws dictate that service delivery be based on students' needs; however, other factors are also found to influence the selected service delivery model. For example, research analyzing speech and language data found that the size of a caseload has a significant impact on the recommended service delivery models for students (Amir et al., 2021; Brandel and Frome Loeb, 2011; Hutchins et al., 2016, Katz et al., 2010). Brandel and Frome Loeb (2011) surveyed approximately 2000 speech-language pathologists in school-based settings to analyze the factors considered when recommending a service delivery model. The findings indicated that although speech-language pathologists' beliefs align with Individuals with Disabilities Education Act and

the need to develop individual education programs, analysis of caseloads revealed limited variabilities in service delivery models regardless of the student's disability or needs (Brandel and Frome Loeb, 2011). Further, the National Outcomes Measurement System (NOMS) was developed by the American Speech-Language-Hearing Association to collect data, including service delivery information. In 2007, NOMS data indicated that 90% of students receiving speech and language supports and services received group pull-out services (Mullen & Schooling, 2010). In addition, when analyzing group vs. individual intervention, Brandel and Frome Loeb (2011) found that the greater the speech-language pathologist caseload, the less likely the student would receive services multiple times a week. Therefore, the prevalence of speech-language pathologists employing pull-out group intervention could impact the effectiveness of instruction given that outside factors beyond student need may be driving service delivery decisions.

Tambryraja et al. (2015) analyzed the stability of language development that students experienced, comparing pull-out therapy sessions to in-classroom instruction. The findings indicated that classroom instruction resulted in more remarkable student improvement when compared to pull-out speech and language sessions and that the frequency of pull-out speech and language sessions had minimal impact on progress (Tambryraja et al., 2015). Although research indicates that pull out group services do not facilitate the same results as in classroom instruction, speech language pathologists continue to employ pull out services as the primary service delivery model. Caseload affects a speech-language pathologist's ability to recommend and implement various student-specific service delivery models. Hutchins et al. (2016) surveyed school-based speech-language pathologists and found that only 16% of participants felt they could

provide optimal service delivery. Current practices appear to conflict with the American Speech-Language and Hearing Association's professional issue statement outlining the need for school-based SLPs to diversify service delivery options to meet the needs of students (ASHA, 2010).

Documentation of Compliance and Reimbursement. In ASHA's professional issue statement, policy related to compliance outlines the requirement for SLPs to adhere to federal and state mandates, including documentation that supports the IEP process and Medicaid billing (ASHA, 2010). Amir et al. (2021) found that 15% of all speech-language pathologists indicated they were concerned with the increase in paperwork and third-party billing required to comply with federal, state, and local expectations. For speech-language pathologists to maintain legally defensible records they must ensure records document child find efforts, including screening and student data reviews. Speech-language pathologists also serve a unique role as the teacher of record or a related service. In addition to supporting the IEP process as a team member, a speech-language pathologist serves as the case manager for students with a primary disability of speech-language impairment. As case manager, the speech-language pathologist is responsible for ensuring compliance related to assessments and eligibility, development and implementation of the IEP process, and progress monitoring. Given that speech-language pathology is also considered a medically related service, speech-language pathologists must also maintain and submit documentation to school-based medical access so that the school district can receive federal reimbursement for speech-language support services. Maintaining compliance with Individuals with Disabilities Education Act and state special education regulations requires a speech-language pathologist to prioritize the need

to maintain accurate and efficient documentation and required practice that impacts SLPs workload in the schools.

Recommended Practices for SLPs in Schools

In addition to required practices, multiple practices are recommended to facilitate high-quality instruction that results in educational benefit for students. These practices are not mandated to be completed during the school day. Still, they are found in the American Speech-Language-Hearing Association professional issue statement outlining the roles and responsibilities of a speech-language pathologist in schools. Two practices outlined, interprofessional collaboration and professional development, both enhance the effectiveness of instruction and are founded in evidence-based research. The speech-language pathologist may assign them less priority because there are minimal accountability measures in place. For example, as a student's individualized educational program team member, a speech-language pathologist must participate in the student's annual team meeting where required members are present. However, this annual meeting does not facilitate the level of collaboration necessary to meet the needs of students and maximize educational benefit effectively.

Similarly, the American Speech-Language-Hearing Association and state education departments mandate that speech-language pathologists maintain a determined number of continuing education hours; however, speech-language pathologists are challenged to find time during the workday for professional development without impacting their direct instruction for students. This often forces speech-language pathologists to complete required continuing education outside of their typical workday. Although interprofessional collaboration and professional development do not have the

same accountability as responsibilities legally mandated by state and federal law, speech-language pathologists can better serve their students, families, and colleagues when they can engage in these practices.

Interprofessional Practice. The American Speech-Language-Hearing Association's Envision the Future: 2025 statement highlights the worldwide cross-organization focus on increasing collaboration across professions through "developed relationships and systems to enhance the interchange of professional knowledge, research and education" (ASHA, 2021). ASHA advocates for all speech-language pathologists to engage in Interprofessional Practices (IPP), which requires professionals with diverse expertise to work together to assess students' abilities and needs and develop and implement an individualized education program in schools. The focus is on establishing student outcomes by sharing each professional's expertise in a manner that increases the knowledge of the whole team and supports continuous collaboration with regards to setting goals and problem-solving ways to overcome challenges faced when achieving the established goals (Giess & Serianni, 2018). School-based SLPs are mandated to engage in collaborative practices as part of the Individual Education Program team under the Individuals with Disabilities Education Act (2004); however, collaboration models vary from district to district or school to school. Bruce and Bashinski (2017) completed a literature and research review to analyze strategies that enhance collaborative practices. They found that interprofessional collaborative rules require the team to focus on the characteristics of the learner. At the same time the professional with the most expertise in the area leads the educational team to address an area of programming (Bruce & Bashinski, 2017). Although research highlights the importance of professionals

collaborating in schools to support special education, many factors restrict a school-based speech-language pathologist's ability to engage in collaboration. Pfeiffer et al. (2017) examined factors that predicted speech-language pathologists engagement in IPP by surveying 474 school-based speech language pathologists. The research found that only 8% of SLPs engaged in IPP during an initial evaluation and 14% during interventions. The barriers that they identified included "time constraints/scheduling, resistance from other professionals and lack of support from employers/administration" (Pfeiffer et al., 2019). Speech language pathologist are tasked to prioritize responsibilities daily to best meet the needs of students; however, outside factors may prohibit the ability to align practice with those outlined by ASHA's professional guidance (ASHA, 2010).

ASHA's professional issue statement also outlines the speech-language pathologist's role in response to intervention or multiple tier support systems where interprofessional collaborative practices are critical. School-based speech-language pathologists, however, continue to have limited involvement in response to intervention in the schools. A study found when surveying 567 participants that overall speech-language pathologists infrequently collaborate with school Multiple Tiered Systems of Supports initiative (McKenna et al., 2021). Cooper-Duffy and Eaker (2017) found that speech-language pathologists who engaged in high levels of collaboration with caseloads of 47 students or more reported that they felt that their caseload was unmanageable. Other interprofessional collaborative practices that include families prove to increase student outcomes (Cooper-Duffy & Eaker, 2017), yet one study that surveyed school-based speech-language pathologist in Vermont found that only 14 % of professionals reported having the time to engage families (Hutchins et al., 2016). Although the benefits

of interprofessional collaborative practices with other professionals and families are understood within the profession, implementation continues to be a challenge.

Professional Development. Professional development is also a critical role and responsibility for speech-language pathologists. Given the wide range of roles and responsibilities, the speech-language pathologist must continue to expand their knowledge of speech-language disorders and interventions to ensure that they are familiar with the latest evidence-based research that supports their instruction and promotes positive outcomes for students. ASHA and state education agencies require continuing education credits to maintain certification and licensure (ASHA, n.d.-g). Many SLPs attend workshops and conferences to accrue these mandated hours. Still, they are reported to struggle to find time during the workday to engage in professional development specific to student concerns on their caseloads. In a study that surveyed school-based SLPs in Vermont, findings indicate that only 11.8% of participants reported having time to "access and review research," and 10% reported having time to consult with experts (Hutchins et al., 2016). The data indicates that school-based speech-language pathologists may struggle to find the time necessary to expand their knowledge and improve their instruction in a school-based setting.

Interprofessional collaborative practices and professional development are vital roles and responsibilities for speech-language pathologists, specifically those that work in school-based settings. However, the time that professionals spend engaging in these recommended practices appears to be less significant than the time spent engaging in required practices mandated by federal and state legislation and have accountability measures in place. As the roles and responsibilities continue to expand in the schools,

speech-language pathologists will be asked to prioritize commitments to ensure that students are provided the supports and services needed to obtain educational benefit.

Speech and Language Trends in Schools

The American Speech-Language-Hearing Association periodically completes a schools survey to assess current trends related to speech-language support services. Clear trends are identified in the field by analyzing data from 2000 through 2020. For example, over the last 20 years, survey data indicates that the national median caseload for speech-language pathologists working in schools has remained consistent, ranging from 47 to 48 students (ASHA, 2018; ASHA, 2020). Caseload size trends continue to vary significantly from state to state, where the median case size can be as low as 34 students and as high as 60 students (ASHA, 2020). For example, in the 2020 Schools Survey, Pennsylvania's median caseload was 56, whereas just across the state line in New Jersey, the median caseload size was 34 students. Although caseload sizes have remained consistent over the last 20 years, the population served has changed. In 2010 80% of speech-language pathologists reported working with a student with an Autism diagnosis, and in 2020 the percentage increased to 92%, demonstrating a 12% increase over ten years (ASHA, 2020). When comparing data from 2004 to 2020 there is also a trend toward SLPs providing interventions to address pragmatic-related language disorders. The mean number of students receiving instruction to address social communication in 2004 was 8 (ASHA, 2018) and rose to 12.5 by 2020 (ASHA, 2020). Data also indicates a decline in the average number of students who receive intervention for speech sound disorders from 23 in 2004 to 18 in 2018 (ASHA, 2018). There is a possibility that the decline in students who receive special education for speech sound disorders is a result of

the reauthorization of Individuals with Disabilities Improvement Act (2004) that afforded speech-language pathologists the ability to provide early intervening services utilizing a Response to Intervention model. Data from 2010 to 2018 indicates that 76%-87% of school-based SLPs participated in some capacity to Response to Intervention (ASHA, 2018). By analyzing the data, clear trends emerge. School-based speech language pathologist's student populations are shifting towards students with more complex needs. There is a decline in the number of students receiving special education services for speech sound production, and speech language pathologists are experiencing an increased role in Response to Intervention (ASHA, 2018; ASHA, 2020).

ASHA, as the leading research organization for speech-language and hearing in the United States, developed the National Outcomes Measurement System (NOMS) to collect data related to outcomes and service delivery (Mullen & Schooling, 2010). The last report for K-12 data was in 2010 and provided statistical data related to service delivery in schools. The report indicated that 69.8% of students receive intervention sessions twice a week, 74.5% of the sessions ranged from 21-30 minutes in length, and 77.7% -81.7% group instruction with 2-4 students (Mullen &Schooling, 2010). Brandel and Frome Loeb (2011) found similar results, where 73% of students received intervention in a group and 74% of the sessions were outside the classroom. To further analyze trends in service delivery, the ASHA's school survey data indicates that SLPs have consistently spent 8-10 hours a week providing pull-out speech-language support services from 2014-2020 (ASHA, 2018; ASHA, 2020). Brandel and Frome Loeb (2011) found that SLPs reported the high prevalence of group pull-out instruction was due to scheduling difficulties and the size of caseloads. They also found that SLPs with

caseloads of over 80 students were 30.5 times more likely to recommend once-a-week services. (Brandel and Frome Loeb, 2011). The lack of diversity in intervention brings into question if current school based SLPs practice related to service delivery aligns with the expectations set forth by the Individuals with Disabilities Education Act (2004). The needs of the student population speech-language pathologist serve are increasing yet service delivery appears to continue to focus on weekly pull-out services with an evident lack of individualization with regards to programming.

School Based Speech-Language Pathologist Job Satisfaction

The Bureau of Labor Statistics (2020) reported 158,100 speech language pathologists in the United States of America, with an anticipated growth of 29% over the next ten years. The labor report also indicated that most SLPs work in schools where the median national salary is $71,410. (Bureau of Labor and Statistics, 2020). When American Speech-Language-Hearing Association (2018) surveyed school-based speech language pathologist, they found that 55.3 % of respondents reported more job openings than job seekers for elementary speech-language pathology positions. As the field continues to grow school districts face the challenges of recruiting and retaining speech-language pathologists. Research related to job satisfaction must be considered to better understand these challenges.

One of the most significant factors impacting the job satisfaction of speech-language pathologists in schools is the caseload size. The 2020 ASHA's Schools Survey data reported that 56.5% of speech-language pathologists working in schools indicated that caseload size was their most significant challenge (ASHA, 2020). Research exploring the perceptions of speech-language pathologists has consistently found that

caseload size has a direct correlation on the speech-language pathologist job satisfaction (Amir et al., 2021; Blood et al., 2002; Edgar & Rosa-Luga, 2007; Katz et al. 2010). Amir et al. (2021) reported that SLPs with caseloads of 40 or fewer students were significantly more satisfied with their jobs than those that serve more than 40 students on their caseload. Katz et al. (2010) found when surveying SLPs that professionals with 36-61 students on their caseloads were increasingly more likely to report that their caseloads were unmanageable. Although the research indicates that speech-language pathologists are more satisfied with their jobs when they serve 40 or fewer students, only New Mexico and Alabama caseload guidance support the lower caseload maximum (ASHA, n.d.-d). The 48 other states either have no established maximum or have maximums set above the 40-student threshold (ASHA, n.d.-d).

Time limitations and workload are also factors found to impact the job satisfaction of school-based speech-language pathologists negatively. More than forty percent of respondents in a Florida study of school based SLPs reported that high workloads, including responsibilities outside of direct services such as paperwork or meetings, negatively impact job satisfaction. The findings also noted that greater than 47% of respondents reported spending more than seven hours a week completing required paperwork (Edgar & Rosa-Luga, 2007). Given that the average school day is less than eight hours, school-based speech-language pathologists spend approximately 20% of their workweek completing paperwork rather than working directly with students, staff, or families. Amir and colleagues surveyed school-based SLPs in New York and found that 93% of respondents reported working overtime weekly to fulfill their job responsibilities. One-third of the respondents indicated that they worked greater than 5

hours of overtime weekly (Amir et al., 2021). The wide range of roles and responsibilities of school-based speech-language pathologists and the limited time available to complete tasks negatively impact job satisfaction.

The American Speech-Language-Hearing Association clearly outlines the need for speech-language pathologists to engage in interprofessional collaborative practices. In addition, the Individuals with Disabilities Education Act (2004) mandates the need for speech language pathologist collaboration as a member of an individualized educational team. When surveying school-based speech-language pathologists in New York, Amir et al. (2021) found a positive theme indicating that speech-language pathologists who regularly engage in interprofessional practices reported greater job satisfaction. Blood et al. (2002); however, found that speech-pathologist in the school-based setting were less satisfied with their co-workers by 2.1 standard deviations below normative data. Thus, although research demonstrates a positive impact on job satisfaction when SLPs collaborate with their co-workers, data indicates that speech-language pathologists may experience challenges building relationships that facilitate collaboration.

School-based speech-language pathologists indicate that the inability to provide optimal services to students impacts job satisfaction. Hutchins et al. (2016) reported that only 16% of the surveyed speech-language pathologist in Vermont schools indicated that they had time to conduct optimal services for students. High caseloads and workloads for school-based speech-language pathologists were found to increase the number of group sessions provided to students (Dowden et al., 2006, Edgar & Rosa-Lugo, 2007; Hutchins et al., 2016). Regardless of the students' individual needs and evidence-based instructional practices, speech-language pathologists frequently make service delivery

decisions based on workload and time available during the workweek. This practice directly conflicts with speech-language pathologist ethics. Amir et al. (2021) found that only one-third of surveyed speech-language pathologists felt that their instruction and practices met the needs of their students. They also found a negative correlation between high caseloads and the speech-language pathologists' ability to provide individualized instruction (Amir et al., 2021). As a result, speech-language pathologists face the ethical dilemma of selecting service delivery options that are not necessarily driven by student needs as mandated by federal and state law but instead base education decisions on the time they have available during the school day.

School administrators must analyze factors impacting job satisfaction. Caseload size, workload, time limitations, collaboration, and inappropriate service delivery are all factors that impact job satisfaction a schools continue to experience increased demands for speech language pathologists and increased vacant positions. To increase job satisfaction and retention of staff, administrators must analyze how to manage the workload of speech-language pathologists best to improve the employee's job satisfaction and ensure that students are receiving effective instruction and achieving meaningful educational benefit.

Workload vs. Caseload Models

American Speech-Language-Hearing Association (1993) recommended a maximum caseload size of 40 students without considering the service delivery model for a school-based speech-language pathologist. Many states across the United States followed suit and adopted caseload maximums for SLPs in schools. In October of 2000, twenty-one states in the United States clearly defined caseload maximums for school-

based speech-language pathologists ranging from 30 students to 80 students (Block, 2000). The American Speech-Language and Hearing Association (2002) published a position statement highlighting the need for speech-language pathologist workload to be considered rather than caseload. Despite this guidance in 2020, twenty states were reported by ASHA to continue to use clearly defined caseload maximums in schools to manage the workload of speech language pathologist (ASHA, 2020). ASHA (2020) completed the Schools Survey and found that 79% of speech-language pathologists worked in school-based settings in which the administration uses a caseload approach.

A caseload model accounts for the number of students a speech-language pathologist supports who have Individualized Education Programs (ASHA, 2002). Caseload models do not account for the impact of varied student needs, service delivery models, or students who receive preventative services; therefore, the model creates discrepancies regarding the workload that speech-language pathologists experience. For example, a speech-language pathologist with a caseload of 50 students with moderate speech sounds errors shares a lesser workload than a speech-language pathologist who supports students with more complex needs. Students who receive articulation therapy to address speech sound errors frequently receive group instruction one or two times per week, whereas students with complex needs typically receive more individualized instruction. A survey of Washington State school-based SLPs found that regardless of student needs, the larger the speech-language pathologist's caseload, the more likely students were to receive group therapy (Dowden et al., 2006). These findings support ASHA's rationale for utilizing a workload model rather than a caseload model to prevent professionals from making service delivery decisions based on time available rather than

student needs (ASHA, 2002). Further, a pure caseload model does not account for the expanded professional practices of school-based speech-language pathologists such as Response to Intervention, interprofessional collaboration practices, or facilitating literacy interventions.

A workload model accounts for all activities that speech-language pathologists engage in to comply with ASHA's guideline for the roles and responsibilities of the speech-language pathologist and adhere to different district expectations (ASHA, 2002). A workload model allows SLPs to account for varied service delivery models designed to support individual students' needs and captures the time spent on indirect service delivery and compliance-related tasks (Marante & Farquharson, 2021). The workload model supports SLP's ability to comply with Individuals with Disabilities Act (2004) by putting the student's needs at the forefront of decision making rather than determining supports and services based on the time available. IDEA mandates that Individualized Educational Programs be developed to ensure that students achieve meaningful educational benefits (IDEA, 2004). School districts have long interpreted "meaningful educational benefit" to mean that students must make progress even if the progress is minimal. The United States Supreme Court decision in *Endrew F. v. Douglas County* (2017) clarified that meaningful educational benefit requires an Individualized Education Program to be "appropriately ambitious in light of the circumstances" and "merely more than de minimis." The impact of this decision places increased accountability on the school district to ensure that service delivery is based on student need rather than the time a professional has available to support a student.

The American Speech-Language-Hearing Association has developed two workload calculators to support speech-language pathologists' ability to collect, track and report workload data to district administration. These tools were developed to assist speech-language pathologists who desired to advocate for the implementation of workload analysis rather than caseload analysis (ASHA, n.d.-c). The workload calculators are Excel spreadsheets that require speech-language pathologists to track their daily activities and report their time on various direct and indirect services. ASHA has a weekly and monthly calculator available for use (ASHA, n.d.-c). ASHA (2002) position statement advocates for school districts to implement a workload model, due to high caseloads resulting in "poorer student outcomes" and "impede the intent of IDEA." However, despite ASHA's efforts to implement change and employ districts to utilize a workload model, eighteen years later, only 17% of school-based speech language pathologist reported using a workload approach (ASHA, 2020). ASHA (2020) indicated that only 10% of speech-language pathologist report using the Workload Calculator on ASHA's Website, and 52% of speech-language pathologists reported that they were not aware of the workload calculator. It is unclear why school districts have not adopted a workload model; however, it is possible that district administrators are unaware and continue to use the guidelines set forth by their individual states.

ASHA's caseload chart from 2020 (ASHA, 2020) to the previously published caseload chart from 2000 (Block, 2000), it is evident that many states are still utilizing caseload models rather than workload models to guide practice. For example, Kentucky and Nevada were noted to establish caseload maximums in the 2020 report that did not exist in 2000. In addition, Illinois, Mississippi, New Mexico, Pennsylvania, and Virginia

were all noted to reduce the maximum caseload numbers during this period; however, all five states still established caseload maximums that were above the 1993 ASHA recommended caseload of 40 (ASHA, 1993; ASHA, 2020; Block, 2000). Thus, although the changes in caseload size could indicate states identifying the need to reduce the workload of speech-language pathologists in schools to ensure better outcomes for students, ASHA continues to advocate for implementing a workload model rather than caseload (ASHA, 2002).

Special Education Leadership and Administration

School district directors of special education fulfill a unique and challenging role in the school system. They are tasked with providing a free and appropriate public education to eligible students in the least restrictive environment to achieve meaningful educational benefit. Lashley and Boscardin (2003) outlined the role of the directors of special education as overseeing special education programming, which includes related service providers, and ensuring alignment with federal, state, and local legislation, policies, and procedures. Luckner and Movahedazarhouligh (2019) highlighted the increased expectations and challenges for school district special education directors, which include:

- finance and budgeting with reducing funding allocations
- emphasis on accountability, including testing requirements
- ensuring implementation of evidence-based instruction and data-based decision making
- teacher Effectiveness
- determination of student eligibility for programming

- compliance with federal and state mandates
- collaboration with families and outside providers

School districts must provide a continuum of supports and services to ensure that each student's individualized educational needs are appropriately met. Special education directors are responsible for recruiting and retaining a workforce of qualified special education teachers and related service providers to develop and implement programming within the district to support a continuum of services (Lashley & Boscardin, 2003). Luckner and Movahedazarhouligh (2019) surveyed special education administration and found that 88.52% of respondents indicated that hiring qualified personnel is challenging and that 78.69% reported challenges related to retaining personnel. Given the continued need for speech-language pathologists in schools, district administrators are challenged to recruit and retain qualified personnel.

School administrators are responsible for allocating funds to employ staff and operate programming to provide a continuum of services. Sansositi et al. (2011) interviewed focus groups and found that special education administrators consistently reported a decline in special education funding that does not cover the increased costs of related services. Respondents during the interviews also discussed the challenges of balancing finances with the legal requirement of special education services (Sansositi et al., 2011). Luckner and Movahedazarhouligh (2019) reported that 55.73% of special education administrators indicated challenges in engaging in data-based decision-making to operate programs and services for students with disabilities due to the budget and staffing limitations. A theme was identified: school districts needed more funding for special service providers like speech-language pathologists. This presents a challenge to

special education administrators. They are tasked with maximizing the productivity of speech-language pathologists to reduce the overall cost while ensuring that they can implement evidence-based instructional practices.

The need for school administrators to maximize staff productivity, reduce cost, and ensure evidence-based instruction practices are being employed is critical for student success. However, directors of special education are given limited tools for managing the caseload and workload of specialized service providers. Many states mandate caseload maximums for districts to adhere to; however, these numbers do not provide information related to workload and productivity. The lack of data collection tools increases the challenges special education administrators face when making program decisions to ensure that students receive the appropriate services, service providers have a reasonable workload and cost of service delivery are fiscally responsible.

District special education administrators are further challenged to monitor related service providers' caseloads to ensure realistic expectations to maintain qualified staff members and not lose them through attrition. Realistic expectations for related service providers are also crucial to ensure that students receive appropriate educational programming to meet their individual needs. Bon and Bigbee (2011) found that special education administrators reported concerns regarding the rising cost of special education litigation. When students' individualized education programs do not meet their individual needs, the school district puts itself in jeopardy of facing legal action from families. Special education directors engage in a juggling act to balance ensuring the implementation of evidence-based instruction by a qualified staff member compliant with

federal and state mandate and avoids potential litigation while also being fiscally responsible.

Summary

The field of special education continues to evolve, including the expanding scope of practice of speech-language pathologists in educational settings. Special education administrators are responsible for ensuring speech-language pathologists can fulfill their responsibilities so that students receive appropriate evidence-based instruction that results in meaningful educational benefits. With the increased challenges of recruiting and retaining speech-language pathologists, school administrators must improve data management systems to analyze the workload of related service providers to maximize productivity and maintain fiscal responsibility while also ensuring appropriate evidence-based instructional practices are being employed. This research aims to determine if utilizing a caseload or workload model for school-based speech-language pathologists better support administrative data collection and analysis for programmatic decisions that focus on instructional effectiveness.

CHAPTER III

Methodology

A comprehensive literature review supported the researcher's need to investigate strategies and tools that assist school administrators in assigning workloads to itinerant staff members, including speech-language pathologists. Research reviewed indicated that school-based speech-language pathologists' job satisfaction corresponded with their caseload and workload (Amir et al., 2021; Blood et al. 2002). The researcher also identified in the literature significant challenges special education directors face to recruit and retain qualified staff members to provide the necessary related services for students to achieve meaningful educational benefits. Luckner and Movahedazarhouligh (2019) reported that special education directors indicated challenges related to their ability to make data-based decisions to operate special education programs while considering staffing and fiscal limitations.

This research study aimed to examine practical ways for school administrators to assign workloads to speech-language pathologists, resulting in students receiving effective services while also ensuring fiscal responsibility. This chapter defines the purpose of the research study and the established research questions. Research participants and the setting are detailed in this chapter and an outline of the research plan is provided. A comprehensive overview of the research design, methods of research employed, and data collection tools and procedures are explained. Further, the study's validity is clarified to support the implication of the findings.

Purpose

This study investigated speech-language pathologists' perceived instructional effectiveness in relation to their caseloads and workload to assist school administrators with the selection of an effective model of caseload management for itinerant employees. The roles and responsibilities of school-based speech-language pathologists have expanded over the last fifty years. As the roles and responsibilities increase for speech-language pathologists, school administrators are finding it more challenging to attract and retain professionals to provide high-quality, effective instruction to meet the needs of students. In addition, established laws and policies provide school administrators with mandated caseload maximums in many states. In contrast, the American Speech-Language-Hearing Association (ASHA) advocates that caseload management models do not provide administrators with the necessary information to make a programmatic decision. Therefore, ASHA supports the use of workload analysis to guide school administrators when managing the caseloads of a school-based speech-language pathologist. (ASHA, 2002).

This study utilized a quantitative research design to examine the impact of using a caseload and workload model to predict perceived teacher effectiveness. The research intended to determine if a caseload or workload model was a more effective tool for school administrators managing speech-language pathologist workload. By comparing caseload and workload data to survey data capturing speech-language pathologists' perceived effectiveness of specific job functions, the study analyzed the effectiveness of each model. Participants reported their caseloads and completed ASHA's Weekly

Workload Calculator for one week each month during a six-month timeframe. Data analysis addressed three research questions.

Research Questions:

1. What are school Speech-Language Pathologist's perceptions of their job effectiveness in relation to their caseload vs. workload?
2. How does a Speech-Language Pathologist's caseload impact the amount of time spent engaging in required job responsibilities, specifically direct instruction and compliance-related job functions?
3. How does a Speech-Language Pathologist's caseload and workload impact the employees' ability to complete recommended job responsibilities, specifically interprofessional practice and professional development?

The first research question specifically compared participants' perceived job effectiveness with their reported caseload and their reported workload. The second and third questions analyzed the participants perceived effectiveness concerning specific required and recommended job functions. All three research questions focused on analyzing which administrative management model would best support an administrator's ability to maximize the productivity of itinerant employees without compromising instruction.

Setting

The study targeted speech-language pathologists practicing in school-based settings in the Westmoreland Intermediate Unit's service area. The Westmoreland Intermediate Unit is one of Pennsylvania's 29 regional educational service agencies, established in 1971 by the General Assembly (Westmoreland Intermediate Unit, n.d.)

Intermediate Units provide cost-effective programs and services to support public and nonpublic education and serve as the link between the Pennsylvania Department of Education and county school districts. The Westmoreland Intermediate Unit is in Southwestern Pennsylvania and supports 17 school districts in Westmoreland County. Westmoreland County is located east of the Pittsburgh metro area (Westmoreland Intermediate Unit, n.d.). The majority of Westmoreland County sits within the Laurel Highlands and covers 1,027.55 square miles with a population of 355.4 per square mile (United States Census, n.d.).

Westmoreland County is comprised primarily of rural and suburban areas with a population of 354,663, centered around the city of Greensburg with a population of 14,976 (United States Census, n.d.). Census results indicated 170,864 housing units in the county, with 77.2% of those units occupied by the owners. Further, 91% of the individuals surveyed resided in their homes for more than one year (United States Census, 2019). These statistics indicate that residents of Westmoreland County and the member school district primarily live in owner-occupied units for extended timeframes. In addition, the 2019 census reported that 18.2% of the population of Westmoreland County was below 18 years old, and 94.7% of the population identified their race as white. The 2019 census indicated that 94.4% of the population graduated from high school, and 29.1% held a bachelor's degree or higher. Diversity exists regarding the size and structure of each school district in the Westmoreland Intermediate Unit's service area. However, the 2019 census data indicate that Westmoreland County has a very homogenous population living in a primarily rural or suburban area.

School districts range drastically in size within the Westmoreland Intermediate Unit's service area. The largest school district is Hempfield Area School District, with enrollment as of December 1, 2020, of 5,338 students. Norwin School District follow closely behind with a registration of 5,119 (Pennsylvania Department of Education, n.d.). The enrollment of these two districts is in sharp contrast to Burrell School District, Derry Area School District, Ligonier Valley School District, Mount Pleasant School District, New Kensington Arnold School District, and Yough School District. Based on December 2021 child count, all of these districts have enrollments under 2,000 students. The county also has several mid-size districts with enrollment between 2,000 and 4,000, including Penn Trafford School District, Kiski Area School District, Greensburg Salem School District, Greater Latrobe School District, and Belle Vernon Area School District (Pennsylvania Department of Education, n.d.). Although the districts vary significantly in their size based on enrollment, 11 out of the 13 districts that participated in this study, reported special education enrollment within 5% of the state average of 18% of students in 2021 (Pennsylvania Department of Education, n.d.). Data demonstrated consistent special education eligibility across the Westmoreland Intermediate Unit school districts. Thirteen of the seventeen school districts in the county, had at least one participant volunteer to participate in the study.

Participants

The participants in the research study were speech-language pathologists who worked in school districts in the Westmoreland Intermediate Unit's service area. There were approximately 57 speech-language pathologists who met the established criteria for participation. All participants provided speech and language support services for

students' kindergarten through twenty-one years of age within the public-school setting or the Westmoreland Intermediate Unit's community-based school. Participants held a Pennsylvania Department of Education instructional certificate or education specialist certificate. All participants maintained employment at a local school district or the Westmoreland Intermediate Unit and worked under conditions established by agreements with the boards of directors and education association. Thirty-two speech-language pathologists initially volunteered to participate in the research by completing and submitting a participant informed consent form (Appendix E). Eighteen participants were employed by the Westmoreland Intermediate Unit and assigned to public schools in the service area. Thirteen of the participants employed by the Westmoreland Intermediate Unit were contracted as full-time employees in a local school district. The remaining five speech language pathologists divided their time between multiple school districts or provided services to students in the Westmoreland Intermediate Unit's community-based school. The remaining fourteen participants were employed directly by the school districts within the Westmoreland Intermediate Unit's service area. Participants' caseloads vary based on their assigned location within a school district where speech-language pathologists may provide services to a specific building and age group or provide services in multiple buildings with a wide range of age groups.

Further caseload variability exists regarding disability eligibility categories of students that the speech-language pathologist serves. Given that local school districts often centralize special education classrooms to enhance programming and reduce costs, caseloads will vary from assignment to assignment. For example, a speech-language pathologist's caseload may consist of students with a primary disability of speech-

language impairment, and another speech-language pathologist may serve students in Life Skills or Autistic Support classrooms. Although all participants were employed in a school-based setting across Westmoreland County, their assignments and caseloads varied.

Intervention & Research Plan

As the scope of practice for school-based speech-language pathologists expanded in response to evidence-based research, educational reform, and legal mandates, the workload demands for SLPs continued to increase. Speech-language pathologists were forced to prioritize responsibilities to ensure students received appropriate instruction, resulting in meaningful educational benefit. District administrators' responsibilities include recruiting and retaining speech-language pathologists and managing their workload. State caseload guidelines established by many states to set workload expectations do not provide administrators with adequate information to ensure a reasonable and equitable workload across speech-language pathologists. Nor do state caseload guidelines provide administrators with the information to make programmatic decisions that support effective instruction. The American Speech-Language-Hearing Association (ASHA) advocates for school districts to adopt a workload analysis model to manage expectations more effectively for school-based speech-language pathologists. ASHA developed two workload analysis systems, Workload Calculator-Weekly and Workload Calculator-Monthly, to support a speech-language pathologist's ability to account for time spent completing tasks related to the responsibilities of a school-based speech-language pathologist. However, the tools provided by ASHA did not provide

recommendations or guidelines for school administrators or speech-language pathologists to determine a manageable workload (ASHA, 2002).

The established research plan utilized ASHA's Workload Calculator-Weekly (Appendix A) to collect workload data for school-based speech-language pathologists over six months. In addition, the traditional caseload data was collected from each participant monthly, corresponding to the week that they were required to report workload data. A survey was administered in March 2022 to collect data on speech-language pathologists' perceptions of their effectiveness related to specific job responsibilities outlined in ASHA's Workload Calculator- Weekly. The research analyzed and compared the efficiency of using a caseload or workload model to predict the speech-language pathologist's perceived instructional effectiveness. School administrators must manage the need to ensure students receive effective instruction while also monitoring staff productivity. They are required to maximize employee productivity to ensure fiscally responsible programmatic operations without compromising the quality of students' education. The analysis of the traditional caseload and the workload model concerning perceived instructional effectiveness was intended to provide school administrators with information to better support school districts' decision-making regarding staffing and assignments for speech-language pathologists.

Research Design, Methods & Data Collection

The quantitative research design selected analyzed the established research questions for this study. Participants collected and reported three different forms of quantitative data for analysis. Data collection required participants to record caseload data, report workload data, and complete a survey. All three forms of data were compiled

and compared to analyze the established research questions. Quantitative data related to caseloads required participants to report the number of students on their caseload each month. This number reflected the number of students on their rosters identified as eligible for special education. The number consisted of students who received direct and indirect services from the speech-language pathologist. This number did not include students receiving speech-language supports or services through response to intervention, nor did it include students being screened or evaluated for special education eligibility. Participants reported caseload data monthly using a Google Form (Appendix B).

The second form of data collected asked participants to complete the American Speech-Language-Hearing Association's Weekly Workload Calculator for one week each month. The weekly workload calculator was designed to collect speech-language pathologists' time in various job-related activities during their contracted workday (ASHA, n.d.-b). The tool requires speech-language pathologist to report time spent on tasks in five categories: Direct Services, Indirect Services, Indirect Services in General Education Setting, Compliance to Support Federal, State, and District Mandates, and Case Management Duties and Other Activities (ASHA, n.d.-c). Specific work-related tasks aligned with the American Speech-Language and Hearing Association's recommended roles and responsibilities (ASHA, 2002; ASHA, 2010). The workload calculators design helps speech-language pathologists balance the workload and share the data with colleagues and administration (ASHA, n.d.-b). Participants were required to track the time spent daily engaged in job-related activities and record time in the workload calculator for one designated week each month for six months. ASHA's Weekly Workload Calculator is an Excel spreadsheet which was submitted through email

to the researcher. ASHA's Weekly Workload Calculator is publicly available on the ASHA's website; however, the researcher reached out to ASHA to ensure approval to use the tool for this research. On July 19, 2021, the ASHA's Associate Director of School Services, provided written correspondence indicating that permission was not needed unless the tool was reprinted in a subsequent publication (Appendix, C).

To assess the participant's perceptions of job effectiveness, each participant completed a survey as the third form of quantitative data to analyze the established research questions. The survey was designed to collect data related to the participant's perception of the impact of their workload on their ability to complete specific job-related functions effectively. The specific job-related functions assessed directly correlated with activities found in ASHA's Weekly Workload Calculator. Participants rated the impact of their workload on their effectiveness regarding specific activities by indicating their agreement with statements using a five-point Likert scale ranging from Strongly Disagree to Strongly Agree (Appendix D). The survey required participants to rate their effectiveness related to twenty-five specific job responsibilities aligned with the established research questions that focused on instruction, compliance-related activities, interprofessional practices, and professional development. Participants completed the survey during the fifth month of the study and the third quarter of the school year using a Google Form distributed through email. Figure 1 reflects the statements included in the Speech-Language Pathologist Job Effectiveness Perception Survey.

Figure 1

Speech-Language Pathologist Job Effectiveness Perception Survey Statements

1	My workload supports my ability to provide effective face to face pull out services.
2	My workload supports my ability to provide effective face to face services within the student's classroom or other setting.
3	My workload supports my ability to provide effective face to face services to evaluate and reevaluate students.
4	My workload supports my ability to effectively prepare and plan for instruction including the following activities: analyzing curriculum, scoring and interpreting test results, creating student materials, designing lesson plans, and designing transition plans.
5	My workload supports my ability to effectively develop and provide professional development.
6	My workload supports my ability to effectively communicate and consult with parents/caregivers.
7	My workload supports my ability to effectively prepare and plan for instruction for students, including the following activities: programming Augmentative and Alternative Communication (AAC) devices and maintaining AAC devices.
8	My workload supports my ability to effectively train teachers/paras/parents.
9	My workload supports my ability to effectively complete student observations (for all purposes except evaluations).
10	My workload supports my ability to effectively engage in pre-referral activities including teacher consultation and attendance at meetings.
11	My workload allows me to provide effective preventative services through a RTI/MTSS model.
12	My workload supports my ability to effectively adapt general education curriculum for my students.
13	My workload supports my ability to effectively plan lessons that connect students' IEP goals with standards.
14	My workload supports my ability to effectively collaborate with teachers to match students' learning styles and teaching styles.
15	My workload supports my ability to attend compliance related meetings including staff meetings, evaluation/reevaluation meetings, student support meetings, annual review meetings, IEP meetings and IEP development meetings.
16	My workload supports my ability to effectively complete speech language and hearing screenings.
17	My workload supports my ability to effectively work on district-wide initiatives.
18	My workload supports my ability to effectively engage in school duties (i.e., lunch duty, bus duty).

19	My workload supports my ability to effectively maintain accurate student records including the following: completing daily service logs, completing progress reports, scoring and interpreting tests, writing evaluation summary reports, completing MA billing, copying all documentation.
20	My workload supports my ability to effectively participate in professional development.
21	My workload supports my ability to effectively participate in school committees.
22	My workload supports my ability to travel between buildings.
23	My workload supports my ability to effectively supervise graduate students and clinical fellows.
24	My workload supports my ability to effectively complete IDEA/Chapter 14 documentation including: PTE/PTRE, ER/RR, Invite, IEP, NOREP and notes.
25	My workload supports my ability to effectively engage in case management related communication with IEP Team members.

To analyze the first research question, *What are school Speech-Language Pathologists' perceptions of their job effectiveness in relation to their caseload vs. workload?* required data collection using all three quantitative data tools. During one designated week a month for six months, participants completed the American Speech-Language-Hearing Association's (ASHA) Weekly Workload Calculator, which collected data related to the amount of time a professional spent completing itemized tasks during the workweek. Data collection took place during the following weeks: November 15-19, 2021, December 13-17, 2021, January 10-14, 2022, February 14-18, 2022, March 14-18, 2022, April 11-15, 2022. Data was submitted to the researcher the following week through email by attaching the Excel spreadsheet created using the ASHA Weekly Workload Calculator (Appendix A). Participants reported their caseload on the Monday of each data collection week. This number included the number of students on their caseload who are eligible to receive speech-language support services under the eligibility guidelines established by IDEA. An email provided participants with a link to a

Google Form and ASHA's Weekly Workload Calculator the week before the established data collection week. Participants completed the *Speech-Language Pathologist Job Effectiveness Perception Survey* (Appendix D) in March of 2022. The survey utilized a Google Form which was distributed to participants. Research question one required the researcher to analyze caseload data and workload data compared to the data collected through the survey. The researcher sought to determine if there was a relationship between the participant's caseload and their perceived job effectiveness and a relationship between the workload and their perceived job effectiveness. By comparing the effectiveness of each model with the participants' sensed job effectiveness data, the researcher wanted to determine which model would most effectively assist school administrators when managing the caseloads of speech-language pathologists to support program operations in a fiscally responsible manner.

The second research question, *How does a Speech-Language Pathologist's caseload impact the employees' amount of time spent engaging in required job responsibilities, specifically direct instruction and compliance-related job functions?,* examined caseload data compared to data reported using ASHA's Weekly Workload Calculator. To answer the research question, data indicating time spent engaged in specific job functions that corresponded with direct instruction and compliance-related job functions were analyzed and compared to the participant's caseload data.

Participants' data collected analyzing time spent in direct instruction was pulled from rows 16-18 in ASHA's Workload Calculator, which assessed the following job responsibilities:

- face-to-face pull-out services
- face-to-face in class or other setting services
- face-to-face initial evaluation and reevaluations (administered tests, observe student in class for evaluation purposes)

To analyze the amount of time participants spent engaged in compliance-related responsibilities, data was pulled from rows 50, 53, 54, 55, 59, 60, 61, 62, 63, 68, 72, 73, 74, 76, 77, 78, 79 in ASHA's Weekly Workload Calculator, which assessed the following job responsibilities:

- attend evaluation/reevaluation meetings
- attend annual review meetings
- attend IEP meetings
- develop IEPs
- complete daily service logs
- complete progress reports
- score and interpret tests
- write evaluation summary reports
- complete Medicaid billing
- write funding reports
- write exit summaries and notices for exiting students
- send notices for evaluations and reevaluations
- obtain parental permission
- note-taking related to IEP meetings, etc.
- keep due process files up to date and in compliance

- copying, other clerical
- other case management tasks.

The data collected within the ASHA's Weekly Workload Calculator related to direct instruction was combined and compared to the participants' caseload data. Time spent engaged in compliance-related tasks was combined and compared to the participant's caseload. The data was then analyzed to determine the relationship between the participant's caseload and time spent engaged in the outlined required job responsibilities.

The third research question, *How does a Speech-Language Pathologist's caseload impact the employees' ability to complete recommended job responsibilities, specifically interprofessional practice and professional development?*, investigates the time participants spent engaged in recommended job-related functions compared to their caseloads. Recommended job functions are tasks that professionals should engage in to provide high-quality services, but there is limited accountability to ensure practices are implemented during the workday. This research specifically analyzed the time spent engaging in job functions associated with interprofessional practice and professional development. To assess the time participants spent engaged in job functions related to interprofessional practice, data was analyzed in ASHA's Weekly Workload Calculator (Appendix A) associated with rows: 23, 27, 29, 34, 40, 41, 45, 49, 51, 52, 57, 66, 75, 84. The highlighted rows assessed the following job responsibilities:

- attending Student Meetings
- develop and Provide Professional Development
- consult with parents/caregivers

- train teachers/paras/parents
- observe students in classrooms (for all purposes except evaluation)
- pre-referral activities, including teacher consultation and attendance at meetings
- consult with teachers to match student learning style and teaching style
- attend staff meetings
- attend student support meetings
- attend other compliance-related meetings
- work on district initiatives
- participate in school committees
- communicate with other school team members
- district emails, phone calls, etc.

Data was analyzed from rows 26 and 65 in ASHA's Workload Calculator (Appendix A) to assess the participants' time engaged in job functions associated with professional development. Rows 26 and 65 captured time related to the following job responsibilities:

- conduct research on evidence-based practices
- participate in professional development

Participants' data related to the recommended interprofessional practice and professional development practices were combined and analyzed compared to their caseload data. Data analysis sought to determine a relationship between speech-language pathologists' amount of time in the recommended practices and their caseloads.

The researcher submitted proposal #20-047 to the Institutional Review Board (IRB) at the California University of Pennsylvania before initiating the outlined research plan, the. The IRB granted approval effective 8/13/21 with an expiration date of 8/12/2022

(Appendix E). The data collection tools selected were available online at no cost to implement the outlined research. Therefore, the fiscal implications of conducting the study were minimal. In addition, participants completed data collection during their workday; thus, no additional costs were accrued for the intermediate unit or the participating school district. The researcher designed a plan to investigate models of workload management to assist school administrators with assigning caseloads for speech-language pathologists in a fiscally responsible manner while promoting effective instruction. Given the selected data collection tools were available at no cost to school administrators, the fiscal implications were minimal.

Validity

Hendricks (2017) described validity as the "trustworthiness" of a study and outlines Lincoln and Guba's (1985) criteria for trustworthiness as a tool for determining the validity of an action research plan. Lincoln and Guba (1985) highlight four criteria to address validity: credibility, transferability, dependability, and confirmability. The researcher designed the research plan to include strategies to address the outlined criteria to increase the study's validity.

Two strategies discussed by Hendricks (2017) were employed to address the credibility of the study: triangulation and accurate data recording. The research design utilized three sources of data: caseload, workload, and survey. All three data sources were collected from 30 participants and combined, increasing the findings' corroboration. To address the accurate data recording, the research design employed ASHA's Workload Calculator (ASHA, n.d.-b), an established tool to support speech-language pathologists' ability to advocate appropriate caseload assignment. In addition, the workload calculator

required participants to record time spent engaged in specific job-related responsibilities established by ASHA for school-based speech-language pathologists (ASHA, 2010). To enhance the study's credibility, the questions asked in the survey *Speech-Language Pathologist Job Effectiveness Perception Survey* (Appendix D) corresponded directly with the job responsibilities found in ASHA's Workload Calculator, increasing the credibility by recording accurate data.

Transferability was addressed by providing an in-depth description of the setting and participants to increase the validity of the research. The research design included participants employed in public schools K-12 in Westmoreland County, Pennsylvania. Participants maintained employment in various school districts with considerable enrollment variations; however, data represented a homogenous population who reside in a primarily suburban environment. In addition, to increase the validity, a review of special education eligibility was provided again, demonstrating minimal variation across the county. By providing a comprehensive overview of participants and setting, the research design addresses transferability to increase the validity of the research.

To address the dependability of the research design, the researcher utilized the strategies of triangulation of data, creating an audit trail, and providing a thick description outline by Hendrick (2017) to increase validity. In addition, workload data collected by multiple participants over six months increased the dependability of the data by minimizing the impact of outlying data points. Participants also submitted their data collected using ASHA's Weekly Workload calculator in an Excel spreadsheet, which provides an audit trail for the collected data. Finally, a comprehensive description of the setting, participants, and research design also supported the dependability of the research.

Lincoln and Guba (1985) established a validity criterion to include confirmability. To address the confirmability of research, the research design employed the strategies of creating an audit trail, using an ASHA endorsed data collection tool, and collecting multiple forms of data to support triangulation. In addition, by developing a survey tool aligned with ASHA's Weekly Workload calculator, the research design supported data triangulation. As a result, it increased the validity of the data regarding its confirmability.

To ensure the trustworthiness of the research design, the research design addressed all four criteria outlined by Lincoln and Guba (1985). Hendrick (2017) provided specific strategies to support the validity of the research to address each of the outlined criteria. Triangulation of data, audit trail, accurate recording, and thick description were all employed in the outlined research design to address validity.

Summary

The research study aimed to investigate models for caseload management of school-based speech-language pathologists. This quantitative research design focused on school-based speech-language pathologists working in K-12 public schools in Westmoreland County, Pennsylvania. Three different quantitative data collection tools were implemented to answer the established research questions. First, participants completed ASHA's Weekly Workload (Appendix A) calculator capturing their time spent engaged in various job functions for one week a month over six months. In addition, participants reported their caseload data monthly using a Google Form (Appendix B) in correspondence with their completion of ASHA's Weekly Workload Calculator. Finally, in March, participants completed a *Speech-Language Pathologist Job Effectiveness*

Perception Survey (Appendix D) which captured the speech-language pathologists' perceptions of their job effectiveness related to specific job functions outlined in ASHA's Weekly Workload Calculator. All three data collection tools were designed to analyze the established research questions to determine the most effective model for school administrators to utilize.

School administrators are tasked with ensuring students receive supports and services that result in them obtaining meaningful educational benefits while being fiscally responsible. Chapters I and II provided an overview of the identified problem to be addressed by the research and a comprehensive review of current literature. Chapter III detailed the participants, setting, research plan, research design, methods, and data collection and discussed the validity of the research design. Chapter IV will provide a detailed report of the data analysis conducted, the results of the study, and an in-depth discussion of the interpreted results.

Chapter IV

Data Analysis and Results

This research design aimed to determine practical strategies for school administrators to assign workloads to speech-language pathologists by examining the relationships between caseloads, workloads, and speech-language pathologists' perceived effectiveness. The outlined research plan in Chapter III detailed procedures used to collect workload, caseload, and perception data. The American Speech-Language-Hearing Association's Weekly Workload Calculator supported the collection of workload data that captured participants' time in job-related responsibilities. A Google Form collected caseload data from each participant throughout the six-month study. Using a 1-5 Likert scale, a Google Form was also used to collect data related to participants' job effectiveness perceptions. This chapter analyzes the data collected to examine the established research questions and determine if a relationship exists between speech-language pathologist caseloads, workloads, and their perceived effectiveness. Details discussed how the study's quantitative data were compiled and analyzed from each participant to examine three established research questions. This chapter also provides a detailed discussion of the interpretation of the results related to the established research questions.

Research Questions

1. What are school Speech Language Pathologists’ perceptions of their job effectiveness in relation to their caseload vs. workload?

2. How does a Speech Language Pathologist's caseload impact the employees' amount of time spent engaging in required job responsibilities specifically direct instruction and compliance related job functions?
3. How does a Speech Language Pathologist's caseload impact the employees' ability to complete recommended job responsibilities specifically interprofessional practice and professional development?

Data Analysis

Participants

Thirty-four participants agreed to participate and signed the established consent form at the onset of the research study. Many participants withdrew throughout the study, resulting in nineteen participants collecting and reporting the required monthly caseload numbers, workload analysis, and perception survey outlined in the established research plan. Three participants withdrew from the study due to a change in their employment. One participant withdrew because of time spent supervising a graduate student. The researcher then eliminated data for eleven other participants because they did not complete one or more month's data. The researcher determined that including partial data would impact the study's validity; therefore, only data from the nineteen participants that submitted the required monthly workload analysis, caseload information, and teacher perception survey were included. To ensure confidentiality, each participant was assigned a letter of the alphabet to associate with reported data. The researcher speculated that many participants could not complete the required data collection and submission due to the challenges and increased burden they experienced during the school year as they

navigated the return to in-person instruction after the previous two years of remote and hybrid learning.

Data Analyses Procedure

The quantitative data submitted by the nineteen participants needed to be compiled and organized to facilitate analysis. Pertinent data collected from ASHA's Weekly Workload Calculator, caseload data, and relevant data reported in the Speech-Language Pathologist Job Effectiveness Perception Survey were combined for each participant as outlined in Chapter III. Each participant's results were then collected to support the researcher's ability to run statistical analyses for correlation to examine the established research questions.

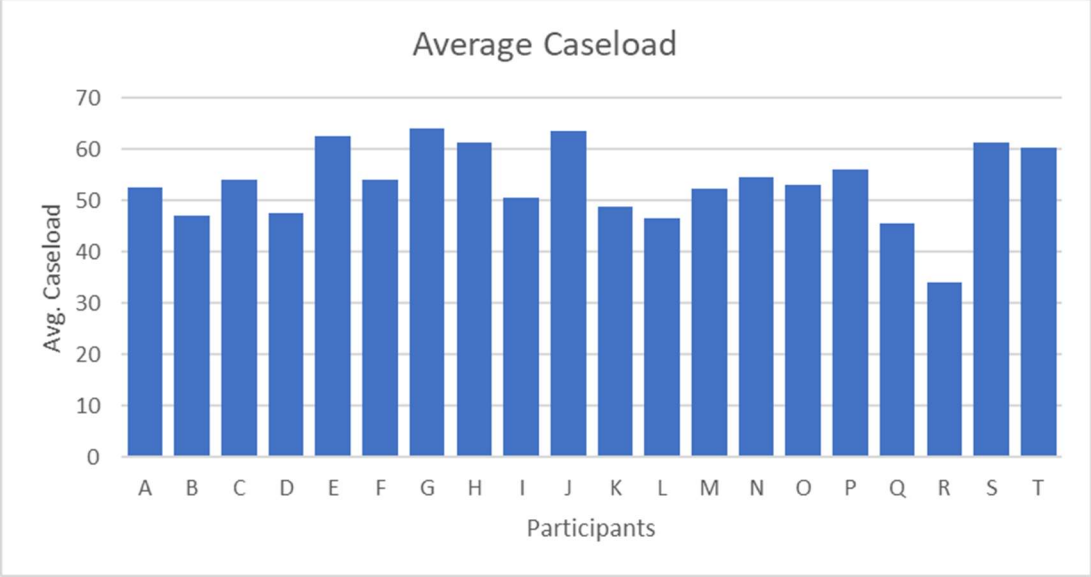
First, each participant completed ASHA's Weekly Workload Calculator for one designated week for six months. ASHA's Weekly Workload Calculator required individuals to collect data highlighting their weekly activities by listing the amount of time they engaged daily in specific activities. This research included particular tasks in the data analysis related directly to the following categories: Direct Instruction, Compliance, Interprofessional Practices, and Professional Development. Many of the activities listed in ASHA's Weekly Workload Calculator did not apply to the research study; therefore, specific reported time was extracted from each participant's monthly submission and added to an Excel spreadsheet for further analysis. In addition, each participant's total time monthly was captured in the Excel spreadsheet. Once data were reported and compiled for all six months in each participant's Excel spreadsheet, these data were averaged to reflect the mean amount of time recorded over six-month data collection period. Therefore, each participant reported data that reflected the mean

amount of time engaged in tasks to reflect the following: total time reported, total direct instruction time, total compliance time, total interprofessional practice time, and total professional development time.

Each participant's monthly caseload that corresponded with their workload data was reported on their individualized Excel spreadsheet. The caseload data was then averaged to provide a mean caseload over the six-month study for each participant. Caseloads for the nineteen participants ranged from an average of 34 students to 65 students. Five participants reported caseload averages between 34 and 49 students, nine reported average caseloads between 50-59 students, and five reported cases above 60 students. Participants' average caseloads are presented in Figure 2.

Figure 2

Participant Caseload Average



Data collected from the *Speech-Language Pathologist Job Effectiveness Perception Survey* utilized a Likert Scale indicating the following: 1- Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree. The *Speech-Language Pathologist Job*

Effectiveness Perception Survey design assesses perceptions directly related to the data collected in ASHA's Weekly Workload Calculator and ratings corresponding with tasks associated with the four assessed domains: direct instruction, compliance, interprofessional practice, and professional development. Questions related to each of the four domains were extracted from the survey and reported in an Excel document based on the numerical values of the five-point Likert scale. The questions that targeted each of the four domains are presented in Figure 3.

Figure 3

Survey Questions Associated with Assess Domains

Direct Instruction
My workload supports my ability to provide effective face to face pull out services.
My workload supports my ability to provide effective face to face services within the student's classroom or other setting.
My workload supports my ability to provide effective face to face services to evaluate and reevaluate students.
Compliance
My workload supports my ability to attend compliance related meetings including staff meetings, evaluation/reevaluation meetings, student support meetings, annual review meetings, IEP meetings and IEP development meetings.
My workload supports my ability to effectively maintain accurate student records including the following: completing daily service logs, completing progress reports, scoring and interpreting tests, writing evaluation summary reports, completing MA billing, copying all documentation.
My workload supports my ability to effectively complete IDEA/Chapter 14 documentation including: PTE/PTRE, ER/RR, Invite, IEP, NOREP and notes.
Interprofessional Practice
My workload supports my ability to effectively develop and provide professional development.
My workload supports my ability to effectively communicate and consult with parents/caregivers.
My workload supports my ability to effectively train teachers/paras/parents.
My workload supports my ability to effectively complete student observations (for all purposes except evaluations).
My workload supports my ability to effectively engage in pre-referral activities including teacher consultation and attendance at meetings.

My workload supports my ability to effectively collaborate with teachers to match student's learning styles and teaching styles.
My workload supports my ability to effectively work on district-wide initiatives.
My workload supports my ability to effectively participate in school committees.
Professional Development
My workload supports my ability to effectively participate in professional development.

Participants' numerical response data were then combined to determine a mean score that corresponded with their overall job effectiveness perception as well as a mean score for each of their job effectiveness perceptions related to the established domains: direct instruction, compliance, interprofessional practice and professional development.

Three types of analyses were employed to answer the three established research questions, and the method of analysis varied based on each individual question. The first analysis was a one-way between-groups analysis of variance (ANOVA). This is a significance test that divides the variance between groups (group-to-group variance) by the variance within groups across the same dependent variable (Mertler, 2019). The second type of analysis utilized one sample t-tests. Independent t tests seek to determine if there is a statistical significance between two groups on the same dependent variable (Mertler, 2019). The final method of analysis looked to determine if there was a linear relationship between two variables through bivariate analyses. To analyze the research questions, significance tests using the Pearson correlation coefficient (r) were utilized to determine if there were significant relationships between two variables being assessed (Mertler, 2019). Although all three methods of analyses were conducted to answer the first research question, the Pearson correlation method was used to examine all three research questions. IBM's SPSS Statistic software was employed to conduct data analysis.

Results

Research Question 1

The first research question aims to answer, "What are school Speech-Language Pathologist's perceptions of their job effectiveness in relation to their caseload vs. workload?" After data were compiled, several tests were conducted, including one-way analyses of variance, one-sample t-test, and Pearson correlation to determine if a relationship exists between caseload and perception of effectiveness and workload and perception of effectiveness.

Two one-way between-group analyses of variance (ANOVA) assessed if a relationship existed between caseload and perception of job effectiveness and workload and perception of job effectiveness. For the independent variable, participants were grouped based on their caseload size (small, medium, large) and workload size (small, medium, large). Participants' mean perceptions of their effectiveness across the individually assessed domains of direct instruction, compliance, interprofessional practice, and professional development – set on a 5-point Likert scale with lower values representing less confidence in effectiveness, higher values meaning more confidence in the effectiveness, and 3.00 representing a neutral perception of effectiveness – served as the dependent variable. For caseload and workload, Tukey HSD post-hoc analyses were run on both analyses of variance, and no significance was indicated. The lack of statistical significance suggests no significant differences among low, medium, and high groups when compared by caseload or workload to mean perceived effectiveness across all domains.

To further analyze if a relationship exists between a speech-language pathologist's job effectiveness perceptions and caseload or workload, five one-sample t-tests compared the speech-language pathologist's perceived effectiveness in each of the four domains: direct instruction, compliance, interprofessional practice, and professional development. The fifth t-test compared a mean score for job effectiveness perception when assessing all four domains together. Each of the five values representing the sample means were individually compared to the hypothesized population mean value of "3.00," determined using the neutral Likert scale of the *Speech-Language Job Effectiveness Perception Survey*. None of the t-tests found statistically significant relationships between caseload or workload and speech-language pathologist job effectiveness perception.

Finally, Pearson correlation analyzed the relationship between caseload or workload variables and the mean job effectiveness perception. For caseload (X), and mean job effectiveness perception across all domains (Y), $r(19) = -.342,\ p(0.152) > 0.05$. Analysis presented in Table 1.

Table 1

Correlation: Caseload and Mean Perception of Effectiveness

		Caseload	Mean Perception of Effectiveness
Caseload	Pearson Correlation	1	-.342
	Sig. (2-tailed)		.152
	N	19	19
Mean Perception of Effectiveness	Pearson Correlation	-.342	1
	Sig. (2-tailed)	.152	
	N	19	19

For workload (X), and mean job effectiveness perception across all domains (Y), $r(19) = .228,\ p(0.348) > 0.05$. Analysis presented in Table 2. Neither of these correlational analyses suggest a statistically significant correlation between caseload (X)

and mean perception of effectiveness across all domains (Y) or workload (X) and mean perception of effectiveness across all domains (Y).

Table 2

Correlation: Workload and Mean Perception of Effectiveness

		Caseload	Mean Perception of Effectiveness
Workload	Pearson Correlation	1	.228
	Sig. (2-tailed)		.348
	N	19	19
Mean Perception of Effectiveness	Pearson Correlation	.228	1
	Sig. (2-tailed)	.348	
	N	19	19

Analysis of participants' monthly workload data, monthly caseload data, and job effectiveness perception survey examined in the first research question if a relationship existed between a speech-language pathologist's caseload and their perceived effectiveness or workload and their perceived effectiveness. The one-way test of variances (ANOVA), one-sample t-tests, and Pearson correlation all resulted in statistical findings that did not meet the criteria for significance. The findings indicated that neither a speech-language pathologist caseload nor workload correlated with their job effectiveness perception. Furthermore, a statistically significant relationship was not observed when categorizing the participants' caseloads and workloads as low, medium, or high.

Although statistical significance was not found, the researcher noted the Pearson correlation results found a negative trend, $r(19) = -.342, p(0.152) > 0.05$, when caseloads were compared to speech-language pathologist perceptions of their job effectiveness and a positive trend, $r(19) = .228,\ p(0.348) > 0.05$, when workloads were compared. Hypothetically, given the linear relationship, if the negative trend were

more significant, the results would indicate that the higher a speech-language pathologist's caseload, the less effective they perceived their job effectiveness. In turn, the positive trend regarding workload would suggest that the higher the speech-language pathologist workload, the more effective they perceived their job effectiveness. The difference in the negative trending relationship for caseload and positive trending relationship workload appeared to contradict; however, the results may imply the relationship between workload and an individual's productivity. Given that workload is not determined by the caseload, a speech-language pathologist may have a low caseload which facilitates the ability to spend more time engaging in job responsibilities that positively impact effectiveness. After reviewing the findings, the researcher also speculates that the lack of statistically significant results may have been affected by the smaller sample size. Even though analyses of the data did not find a statistically significant relationship between caseload or workload and speech-language pathologists' perceived job effectiveness, the data provides insight into future research focuses.

Research Question 2

The second research question, "How does a Speech-Language Pathologist's caseload impact the employees' amount of time spent engaging in required job responsibilities, specifically direct instruction and compliance-related job functions?" aimed to analyze the impact of a speech-language pathologist's caseload on time spent engaged in required job responsibilities. Direct instruction and compliance are responsibilities that comply with federal, state, and local regulations. Significance tests featuring Pearson correlation coefficients were calculated to determine if a significant linear relationship existed between a speech-language pathologist’s caseload and direct

instruction or compliance-related tasks. To assess the relationship between caseload and the time spent engaged in required tasks, caseloads were compared to values representing a sample mean specific to direct instruction and compliance, respectively, using the Likert scale of the *Speech-Language Job Effectiveness Perception Survey*. The research used multiple data sources to determine if a relationship existed.

Direct Instruction. Pearson correlation analyses were utilized to determine the relationship between caseload and the amount of time a speech-language pathologist spent on direct instruction tasks. This correlational analysis does not suggest a statistically significant finding for analyses of caseload (X) and time spent engaged in direct instruction (Y), $r(19) = .228,\ p(0.349) > 0.05$. Data presented in Table 3.

Table 3

Correlation: Caseload and Direct Instruction Time

		Caseload	Direct Instruction Time
Caseload	Pearson Correlation	1	.228
	Sig. (2-tailed)		.349
	N	19	19
Direct Instruction Time	Pearson Correlation	.228	1
	Sig. (2-tailed)	.349	
	N	19	19

To further analyze if a relationship exists between caseload and direct instruction, Pearson correlation was employed to compare caseload and participants' job effectiveness perception related to items associated with direct instruction. For participants' caseloads (X) and mean job effectiveness perception related to direct instruction (Y), $r(19) = -.331,\ p(0.167) > 0.05$, which did not result in statistical significance. The data analysis is presented in Table 4.

Table 4

Correlation: Caseload and Mean Effectiveness Perception Direct Instruction

		Caseload	Mean Effectiveness/Direct Instruction
Caseload	Pearson Correlation	1	-.331
	Sig. (2-tailed)		.167
	N	19	19
Mean Effectiveness/Direct Instruction	Pearson Correlation	-.331	1
	Sig. (2-tailed)	.167	
	N	19	19

Correlation: Caseload and Direct Instruction. Data analyses aimed to answer the research question, "How does a Speech-Language Pathologist's caseload impact the employees' amount of time spent engaging in required job responsibilities, specifically direct instruction?" did not find statistically significant results that would imply a relationship exists between the participants' caseloads and the amount of time a participant spent engaging in tasks associated with direct instruction. The Pearson correlation analyzed data comparing participants' caseloads and the amount of time reported engaging in direct instruction as well as caseload and the participant's mean job effectiveness perception value related to direct instruction. Both analyses supported the evidence that no significant relationships exist.

Compliance. In the same manner, a correlational analysis was utilized to address if a relationship exists between caseload and the amount of time spent engaging in compliance related responsibilities. This correlational analysis does not suggest a statistically significant finding for analyses of caseload and time spent engaged in

compliance related tasks. For caseload (X) and time spent in compliance related tasks (Y), $r(19) = -.112,\ p(0.649) > 0.05$. Results reported in Table 5.

Table 5

Correlation: Caseload and Compliance Time

		Caseload	Compliance Time
Caseload	Pearson Correlation	1	.112
	Sig. (2-tailed)		.649
	N	19	19
Compliance Time	Pearson Correlation	.112	1
	Sig. (2-tailed)	.649	
	N	19	19

To further analyze if a relationship exists between caseload and direct instruction, the Pearson correlation was employed to compare caseload and participants' job effectiveness perception related to items associated with compliance. Participants' caseloads (X) were compared to their mean effectiveness perception related to compliance (Y), and $r(19) = -.089,\ p(0.717) > 0.05$, which resulted in no statistically significant finding. Findings are reported in Table 6.

Table 6

Correlation: Caseload and Mean Effectiveness Perception Compliance

		Caseload	Mean Effectiveness/Compliance
Caseload	Pearson Correlation	1	-.089
	Sig. (2-tailed)		.717
	N	19	19
Mean Effectiveness/Compliance	Pearson Correlation	-.089	1
	Sig. (2-tailed)	.717	
	N	19	19

Correlation: Caseload and Compliance. Data analyses aimed to answer the research questions, “How does a Speech-Language Pathologist’s caseload impact the employees’ amount of time spent engaging in required job responsibilities, specifically direct instruction and compliance-related job functions?” did not find statistically significant results that would imply a relationship exist between their caseload and the amount of time a participant spent engaging in compliance-related responsibilities or their mean effectiveness perception score related to compliance. The Pearson correlation when comparing caseload and compliance time spent engaged in activities and with mean effectiveness perception scores related to compliance are both nearing zero representing a lack of relationship or a presumed occurrence of chance.

Research Question 3

The third research question, "How does a Speech-Language Pathologist's caseload impact the employees' ability to complete recommended job responsibilities, specifically interprofessional practice and professional development?" targets the impact that speech-language pathologists’ caseloads have on their ability to engage in recommended job responsibilities. These responsibilities are recommended practice but do not have the level of legal accountability found with the required responsibilities addressed in the previous research question. The Pearson correlation sought to determine if a correlational relationship exists between a speech-language pathologist's ability to complete the recommended practices of interprofessional practice and professional development when compared to their caseload. Participants' caseloads were compared to the time spent engaged in the outlined recommended practice and the participants' mean job effectiveness perception score.

Interprofessional Practice (IPP). The Pearson correlation analyses were applied to determine the relationship between caseload and the amount of time spend engaged in interprofessional practices. For caseload (X) and amount of time spend engaged in interprofessional practice (Y), $r(19) = -.574, p(0.010) > 0.05$. Results are presented in Table 7. The data analysis indicates a statistically significant negative linear relationship between caseload and the amount of time speech-language pathologists engage in interprofessional practice. Hence, the higher the speech-language pathologist caseload one can anticipate, the less time spent engaging in interprofessional practice.

Table 7

Correlation: Caseload and IPP Time

		Caseload	IPP Time
Caseload	Pearson Correlation	1	-.574
	Sig. (2-tailed)		.010
	N	19	19
IPP Time	Pearson Correlation	-.574	1
	Sig. (2-tailed)	.010	
	N	19	19

To further examine if a relationship exists, data was analyzed comparing the speech-language pathologist caseload and their mean effectiveness perception specific to survey data that assessed the perception of participants' effectiveness related to interprofessional practice. For caseload (X) and mean perception of effectiveness related to interprofessional practice (Y), $r(19) = -0.397, p(0.093) > 0.05$. Results are presented in Table 8. Although findings do not indicate a statistically significant relationship when comparing caseload and mean effectiveness perception, the researcher noted the trend toward the benchmark. A negative relationship when comparing caseload and mean effectiveness perception with regards to interprofessional practice would

indicate the higher a speech-language pathologist's caseload, the less the participants perceived their effectiveness in engaging in interprofessional practice.

Table 8

Correlation: Caseload and Mean Effectiveness Perception of IPP

		Caseload	Mean Effectiveness/IPP
Caseload	Pearson Correlation	1	-.397
	Sig. (2-tailed)		.093
	N	19	19
Mean Effectiveness/IPP	Pearson Correlation	-.397	1
	Sig. (2-tailed)	.093	
	N	19	19

Correlation: Caseload and Time Spent/Mean Effectiveness Perception of IPP. Data analyses aimed to determine if there was a relationship between a speech-language pathologists' caseload and their ability to engage in the recommended practice of interprofessional practice (IPP). When triangulating participants' data, including their reported caseload, reported time spent engaging in tasks associated with interprofessional practice, and their perceived job effectiveness related to interprofessional practice analyses indicates that a negative correlational relationship does exist. A statistically significant relationship was found when analyzing caseload and time spent engaging in interprofessional practice. Although the findings when analyzing caseload and speech-language pathologist mean job effectiveness related to interprofessional practice were not statistically significant at the 0.05 level, the negative trending statistic does correspond to the negative relationship found when comparing caseload and time spent engaged in interprofessional practice. When interpreting the results There is a clear indication of a negative correlational relationship when interpreting the results. The higher a speech-

language pathologist's caseload, the less likely they will spend time engaged in tasks associated with interprofessional practice.

Professional Development. Pearson correlation analyses were applied to determine the relationship between caseload and the amount of time spent engaged in professional development. For caseload (X) and amount of time spend engaged in professional development (Y), $r(19) = -.191, p(0.433) > 0.05$. Results are presented in Table 9. Findings did not demonstrate a statistically significant relationship.

Table 9

Correlation: Caseload and Professional Development Time

		Caseload	Professional Development Time
Caseload	Pearson Correlation	1	-.191
	Sig. (2-tailed)		.433
	N	19	19
Professional Development Time	Pearson Correlation	-.191	1
	Sig. (2-tailed)	.433	
	N	19	19

To examine if a relationship exists between caseload and a speech-language pathologist's ability to engage in professional development, data were analyzed comparing the speech-language pathologist caseload (X) and their mean effectiveness perception specific to survey data that assessed the perception of participants' effectiveness related to professional development (Y). Pearson correlation analyses were applied, finding $r(19) = -.477, p(0.039) > 0.05$, which represent a statistically significant negative relationship. Results are presented in Table 10. The findings indicate a negative linear relationship between caseload and speech-language pathologists' perceived ability to engage in professional development effectively. The association

suggests that the larger the caseload, the lower that speech-language pathologists perceive their ability to engage effectively in professional development.

Table 10

Correlation: Caseload and Mean Effectiveness Perception Professional Development

		Caseload	Mean Effectiveness PD
Caseload	Pearson Correlation	1	-.477
	Sig. (2-tailed)		.039
	N	19	19
Mean Effectiveness PD	Pearson Correlation	-.477	1
	Sig. (2-tailed)	.039	
	N	19	19

Correlation: Caseload and Time Spent/Mean Effectiveness Perception of Professional Development. The correlational results found when comparing caseload and the time reported engaged in professional development should be interpreted with caution. Participants recorded workload data using ASHA's Workload calculator during the week of April 11-15, 2022. During this time the Westmoreland Intermediate Unit held a mandatory in-service day when employees received five hours of professional development. The Westmoreland Intermediate Unit employed eleven of the nineteen participants; thus, it is likely that the increased number of hours reported across participants for professional development was inflated. Comparing caseload and mean effectiveness perception may be a more accurate indicator of the existence of a relationship. The researcher hypothesizes that the negative relationship established would be more conclusive if the study was repeated to capture a typical work week rather than one with professional development embedded. However, caseload analyses and the mean

effectiveness perception related to professional development alone provide robust findings.

Discussion

The research aimed to examine strategies for school administrators to assign workloads to speech-language pathologists by examining the relationships between caseloads, workloads, and speech-language pathologists' perceived effectiveness. Participants reported data using three specific data collection tools. Data were collected from all nineteen participants and compiled for analysis. The Pearson correlation analyses were used to address all research questions to analyze the collected data to determine if a correlational relationship existed. Pearson correlation sought to determine the strength of the relationship between two variables.

To analyze the first research question, "What are school Speech-Language Pathologist's perceptions of their job effectiveness in relation to their caseload vs. workload? Participants' caseloads and workloads were individually compared to each participant's established mean effectiveness perception score using a Likert scale from survey results. Analyses revealed no statistically significant relationship between caseload and perceived effectiveness or workload and perceived effectiveness. Although not statistically significant, results indicated a negative correlation between caseload and effectiveness perception and a positive correlation between workload and effectiveness perception. A negative correlation between caseload and effectiveness perception would suggest that the higher the caseload, the less likely the participant would report higher perceived effectiveness. In contrast, the positive correlation between caseload and effectiveness perception would indicate that the higher the workload, the higher the

perceived effectiveness. The impact of productivity could explain one hypothesis with regard to the positive relationship between workload and perceived effectiveness. Given the participants are employed in a school-based setting, time restraints exist. Therefore, a higher workload may result in higher productivity reported by participants, which could increase perceived effectiveness. The lack of a statistically significant relationship between caseload and workload compared to speech-language pathologists' perceived effectiveness provides insight for school administrators who seek to determine strategies to assign workloads.

The second research question examined, "How does a Speech-Language Pathologist's caseload impact the employees' amount of time spent engaging in required job responsibilities, specifically direct instruction and compliance-related job functions?" School administrators, historically, rely on caseload maximums to assign workloads to a school-based speech-language pathologist. This research question aimed to analyze the impact of using caseload to set workload. Again, data analysis focused on determining if a correlational relationship existed between a speech-language pathologist's caseload and the time they spent engaging in required job responsibilities such as direct instruction and compliance-related tasks. Further analysis sought to determine if a relationship exists between participants' caseload and the speech-language pathologist's job effectiveness perceptions related to the specific responsibilities of direct instruction and compliance-related tasks. The Pearson correlation found no relationship between caseload and time spent in direct instruction or compliance-related tasks. In addition, no association was found between caseload and speech-language pathologists' perceived effectiveness in direct instruction or compliance. Interpretation of findings could imply that regardless of

a speech-language pathologist's caseload the amount of time spent engaging in direct instruction and compliance-related tasks vary. Therefore, the findings could indicate that caseload is not an effective way to determine the amount of time a speech-language pathologist spends providing direct instruction or engaging in compliance-related tasks. Although analyses did not find a statistically significant relationship between caseload and the amount of time spent engaged in required job responsibilities, the lack of connection provides essential insight for school administrators.

To further analyze organizational strategies that support workload assignments for a speech-language pathologist in a school-based setting, the third research question focused on the impact of caseload on speech-language pathologists' ability to engage in the recommended practices of interprofessional practice and professional development. Again, the Pearson correlation analyses were completed to examine if a linear relationship exists, either positive or negative. To assess the "ability of speech-language pathologists," the time spent engaged in interprofessional practices and professional development was compared to caseloads. The mean numerical values reported in the *Speech-Language Pathologist Job Effectiveness Perception Survey* were also compared to caseloads. A statistically significant negative relationship was found when comparing caseload and the time participants engaged in interprofessional practice. This finding indicates the higher a speech-language pathologist's caseload, the less time they spend in tasks associated with interprofessional practice. When comparing caseload with speech-language pathologists' perceived job effectiveness related to interprofessional practice, a statistically significant relationship was not found; however, the findings did demonstrate a negative trend supporting the results when comparing caseload and time spent.

A Pearson correlation was used to compare caseload and time spent engaged in professional development and caseload and participants' perceived effectiveness related to professional development. Analyses did not find a statistically significant relationship when comparing caseload and time spent. The time participants reported engaged in professional development was likely skewed because eleven out of the nineteen participants were required to attend a mandatory in-service day which provided five professional development hours during the established recording week. Given that most school districts only require employees to attend a few in-service days a year, increasing the amount of time spent engaged in professional development is likely not indicative of typical behavior. To further analyze if a relationship exists between caseload and professional development, a Pearson correlation found a statistically significant negative relationship between caseload and participants perceived effectiveness with regards to professional development. The negative relationship indicates that the higher the speech-language pathologist caseload, the lower the perceived effectiveness related to professional development. The result further supports the likelihood that the lack of relationship between caseload and time spent engaged in professional development may have been inaccurate.

In summary, the research aimed to investigate if relationships existed between caseloads, workloads, and perceived effectiveness to better understand strategies that school administrators could employ when assigning workloads to speech-language pathologists so that they can facilitate effective instruction in a fiscally responsible manner. Analyses found that neither caseload nor workload had a statistically significant relationship to speech-language pathologists' perceived job effectiveness. Further,

analyses indicated that caseload did not have a significant relationship with the amount of time spent engaging in required job responsibilities of direct instruction and compliance. Finally, results found a negative association between caseload and a speech-language pathologist's ability to engage in job functions associated with interprofessional practice and professional development. Although results did not indicate statistically significant findings for all three research questions, the evidence has a direct implication for administrative practices for managing the workload of school-based speech-language pathologists.

Summary

This quantitative research design focused on school-based speech-language pathologists working in K-12 public schools in Westmoreland County, Pennsylvania. Three quantitative data collection tools were implemented to collect and analyze data to determine if relationships existed between targeted variables in each of the three research questions. Chapter IV provided a detailed report of the data analyses, the results, and a discussion related to the interpretation of results. Chapter V discusses the conclusions formulated from the analyzed results and the implications for school administrators as well as a discussion related to the research limitation. Finally, recommendations for future research are provided.

Chapter V

Conclusion and Recommendations

Special education administrators are responsible for operating special education programming in school districts to provide effective instruction that ensures students achieve meaningful educational benefits. Operations must be done in a fiscally responsible manner considering the rising cost associated with special education. This study aimed to provide special education administrators with guidance on managing speech-language pathologists' caseloads and workloads to ensure student growth while maximizing productivity and reducing cost. The caseload model employed by many states does not support administrators' ability to effectively analyze the workload placed on a speech-language pathologist and only accounts for data collected through student enrollment, which in Pennsylvania limits caseloads to 65 students (Public School Code, 1949). In contrast, the American Speech-Language and Hearing Association advocates for school administrators to employ a workload model when establishing caseloads. In addition, there is a lack of research-based evidence to support that a workload model is more effective and results in improved instructional effectiveness compared to a caseload model.

The quantitative research design set out to answer three research questions, which targeted the impact of utilizing a caseload model and workload model. Nineteen speech-language pathologists employed in K-12 public schools in Westmoreland County, Pennsylvania, participated in the study. Participants collected data related to their caseload, workload, and perceived effectiveness using three specific data collection tools to determine if a relationship exists between the targeted variables outlined in each

research question. Chapter III outlined the research design, including a description of each data collection tool, timelines, and methods. Chapter IV provided a detailed report of the data analyses, the results, and a discussion related to interpreting the results. Finally, chapter V discusses the conclusions formulated from the analyzed results, the implications for school administrators, and a discussion related to the research's limitations. In addition, recommendations are provided for future research.

Conclusion

The quantitative research design aimed to determine a correlational relationship between several variables in each established research question. The investigation sought to provide school administrators with guidance when selecting an appropriate model to employ when assigning caseloads and workloads to a school-based speech-language pathologist. The following section discusses the conclusions for each research question, details how the results support the findings, and describes how they apply to current administrative practices for improvement. A review of the financial implication of the research study is also provided.

Research Question 1: What are school Speech Language Pathologist's perceptions of their job effectiveness in relation to their caseload vs. workload?

The first research question analyzed participants' data related to their workload, caseload, and perceived job effectiveness to determine if a correlational relationship existed between caseload and speech-language pathologists' perceived job effectiveness and workload and their perceived job effectiveness. The study design aimed to determine if there was a statistically significant negative or positive relationship. Analyses of results indicated a lack of a statistically significant relationship when comparing caseload or

workload data to speech-language pathologist perceived effectiveness data found in the job effectiveness survey results. Although statistical significance was not found when utilizing the Pearson correlation for analyses, the result did indicate a negative linear trend when comparing caseload and speech-language pathologist job effectiveness perceptions and a positive linear trend when comparing workload and job effectiveness perceptions. Although findings are inconclusive, if the negative trend were more significant the results would indicate that the higher a speech-language pathologist's caseload, the less effective they perceived their job effectiveness. Conversely, the positive trend associated with workload and perceived job effectiveness would suggest the higher the speech-language pathologist workload, the more effective they perceive their job effectiveness.

The contradiction between the negative trend associated with caseload and the positive trend with workload provides an opportunity for further interpretation. Although not statistically significant, the negative trend indicating the higher a speech-language pathologist's caseload, the lower their perceived job effectiveness corresponds with current practices. The more students on a caseload typically results in a greater workload, limiting the time available for a speech-language pathologist to plan and provide student-specific interventions. Historically in Pennsylvania, special education administrators have used caseload maximums to set workloads for speech-language pathologists. The current caseload maximum for speech-language pathologists providing supplemental supports and services is 65 students (Public School Code, 1949). Using the caseload model, school administrators could presume that the closer to the maximum, the larger the workload and greater the likelihood of implications for impacting their practice. Out of the study's

nineteen participants, five reported a caseload greater than 60 students, nine reported a caseload between 50-59, and five reported a caseload under 50 students. Given the majority of the participating speech-language pathologists' caseloads ranged between 50-59 students, one could speculate that special education administrators understand a negative correlation may exist and assign caseloads beneath the mandated maximum caseload. The implication of the analysis that sought to find a correlational relationship between caseload and speech-language pathologist job effectiveness, although not statistically significant, appears to support current practices that assume the higher the caseload, the less effective a speech-language pathologist's practice. This knowledge provides insight to school administrators as they assign caseloads while attempting to maximize speech-language pathologists' productivity and ensure students demonstrate meaningful educational benefits. The question remains: is Pennsylvania's mandated caseload maximum of 65 appropriate given the current roles and responsibilities of school-based speech-language pathologists (Public School Code, 1949)?

In contrast to the negative trend observed when comparing caseload and job effectiveness perceptions, a positive trend was noted when comparing workload and job effectiveness perceptions although not statistically significant. A positive correlational result indicates that the higher a speech-language pathologist's workload, the more likely they would report a positive job effectiveness perception. The positive trending correlation has significant implications for special education directors when assigning caseloads. In this comparison, the workload is not associated with the caseload. A speech-language pathologist may have a low caseload which facilitates the ability to spend more time engaging in job responsibilities with fewer students, therefore,

positively impacting the job effectiveness perception. The findings suggest that speech-language pathologists' effectiveness may be more accurately predicted by analyzing their workload; however, statistically significant evidence to support this finding was not found.

Even though neither caseload nor workload provided a statistically significant result, the negative trend when comparing caseload and the positive trend when comparing workload have possible implications for school administrators. In short, neither model demonstrated statistically significant results that imply school administrators should not employ either model in isolation. However, the trend may indicate that each method has some value when establishing workload and caseload assignments for speech-language pathologists.

Research Question 2: How does a Speech Language Pathologists' caseload impact the employees' amount of time spent engaging in required job responsibilities, specifically direct instruction and compliance related job functions?

To further investigate the impact of using a caseload model to assign workload to a school-based speech-language pathologist, the second research question aimed to determine if a correlational relationship existed between caseload and the required job responsibilities of direct instruction and compliance-related tasks. The Individuals with Disabilities Education Improvement Act IDEIA (2004) legally mandates special education in public schools and provides legislative regulations that guide special education. Therefore, this research question focused on responsibilities required or mandated to adhere to the federal statute and, in turn, support state regulations. The impact of participants' caseload was analyzed to determine if a correlational relationship

existed between caseload and the amount of time, they spent engaged in tasks associated with direct instruction and caseload and the amount of time spent engaging in functions related to compliance. A correlational analysis examined caseload and job effectiveness perception related to direct instruction and caseload and job effectiveness perception related to compliance-related tasks. Multiple correlational studies resulted in no statistically significant findings.

Data analyses aimed to examine the relationship between caseload and direct instruction targeted caseload compared to the amount of time speech-language pathologists engaged in direct instruction during the study. The result did not find a statistically significant relationship. Findings indicated an absence of a relationship between caseload and participant's job effectiveness perception related to direct instruction, which also has significant implications for practice. The lack of relationship gives special education administrators valuable information to consider when assigning caseloads for speech language pathologists in schools. Currently, special education administrators utilize caseload maximums established by the state to assign workloads for speech-language pathologists. The lack of correlational relationship, however, may indicate that the caseload model may not be an effective tool when determining the amount of direct instruction, a speech-language pathologist provides or the effectiveness of their instruction. School administrators, therefore, may need to consider more factors than student enrollment data when assigning workload to a speech-language pathologist.

To further analyze the relationship between caseload and the impact of required job responsibilities, the analysis sought to compare caseload and the time speech-language pathologists spent engaged in compliance-related tasks and caseload and job

effectiveness perceptions related to compliance. Correlational analysis utilized in both scenarios found a lack of a statistically significant relationship. Both analyses resulted in findings nearing zero, which represents a chance occurrence. Although a significant relationship was not noted the findings have an important implication for special education administrators responsible for assigning workloads to speech-language pathologists. The result indicates that caseload cannot predict the time a speech-language pathologist engages in a compliance-related task or their perceived effectiveness with the associated tasks.

In summary, the result of the research found that caseload does not have a correlational relationship with direct instruction or compliance-related tasks. Therefore, caseload alone may not give special education administrators enough information to assign workloads to speech-language pathologists in schools. The lack of relationship can be explained when comparing two hypothetical speech-language pathologists. Speech-language pathologist one has a caseload of 58 students where 45 students are eligible for special education due to their speech-language impairment. This SLP may provide 15 hours a week of direct instruction to the 58-students using a service delivery model of pull-out group therapy with three to four students. In contrast, the second speech-language pathologist may have a caseload of 35 students where 20 students receive Life Skill Support or Autistic Support. This SLP may provide 15 hours a week of direct instruction to students individually or with one other student. This fictional scenario provided an explanation that supports the lack of statistically significant relationship found in the research related to direct instruction.

Similarly, the hypothetical scenario above provides a basis for the lack of a relationship between caseload and time spent engaged in compliance-related tasks and job effectiveness perceptions. In the scenario, the first speech-language pathologist has a caseload of 58 students, where 45 of the students receive service to address their speech-language impairment only. In this situation, the speech-language pathologist would be considered the case manager for 45 of the students and responsible for all compliance-related tasks and documentation. In contrast, the second speech-language pathologist is a related service provider for 20 students and the case manager for the remaining 15 students. However, given the more significant needs of the students on the second speech-language pathologist caseload, it is likely that the number of compliance-related tasks could vary significantly. In short, the study found a lack of a correlational relationship between caseload and direct instruction and caseload and compliance. These findings are relevant for school administrators, given that caseloads are the primary tool used to determine speech-language pathologists' workload in most states.

Research Question 3: How does a Speech Language Pathologist's caseload impact the employees' ability to complete recommended job responsibilities, specifically interprofessional practice and professional development?

To investigate the value of using a caseload model as a tool to assign workload to speech-language pathologists in schools, the third research question targeted the impact of caseload on a speech-language pathologist's ability to engage in job responsibilities that are recommended by the American Speech-Language-Hearing Association (ASHA, 2010). Interprofessional practice and professional development are two responsibilities of a speech-language pathologist; however, there is limited accountability established to

ensure that professionals engage in these practices within the education environment. Therefore, this research question sought to determine a correlational relationship between caseload and interprofessional practice by comparing caseload data with time spent engaged in interprofessional practice and job effectiveness perceptions related to interprofessional practice. Caseload was compared to time spent engaged in professional development and job effectiveness perceptions data related to professional development. When comparing caseload with interprofessional practice and professional development, statistically significant findings were identified.

Two separate analyses investigated the relationship between caseload and interprofessional practice. First, data analyses aimed to determine if there was a relationship between a speech-language pathologists' caseloads and their ability to engage in the recommended practice of interprofessional practice. A statistically significant negative correlational relationship was found when comparing caseload to time spent engaged in interprofessional practice. The analysis suggests that the higher a speech-language pathologist's caseload, the less time they will spend engaged in interprofessional practice.

A correlational analysis compared caseload and job effectiveness perceptions related to interprofessional practice to support findings further. The results of this analysis did not indicate a statistically significant finding; however, a strong trend toward a negative relationship existed. Although not statistically significant, the strong negative trend when analyzing job effectiveness perception and the statistically significant relationship established when comparing time spent engaged in interprofessional practice substantiated the negative relationship between caseload and interprofessional practice.

The findings of the correlational analyses align with previous research. Pfeiffer et al. (2019) found that speech-language pathologists reported time restraints and scheduling as factors that impacted their ability to engage in interprofessional practice. The Individual Education Program team under the Individuals with Disabilities Education Act (2004) requires professionals to engage in collaboration; therefore, the negative correlational relationship provides valuable insight for school administrators when assigning workloads for speech-language pathologists. The implications of the findings provide guidance to special education administrators who desire to promote interprofessional practices that facilitate collaboration across team members. They must consider the negative correlational relationship specifically with the time available to engage in collaboration when serving a high caseload. Given the results of this study specific to analyzing the third research question, caseload may serve as an essential tool when establishing workloads for speech-language pathologists. Consider the example of contrasting workloads in the previous research question discussion. The difference between a speech-language pathologist's workload when serving students who are primarily eligible for speech-language support services due to a speech-language impairment and the workload of a speech-language pathologist who supports students with more significant needs vary significantly. One could presume that students with more significant needs would require increased collaboration to meet their educational needs. This knowledge, in conjunction with the findings substantiating the negative correlational relationship, provide special education administrators with guidance as they establish workloads. As special education administrators increase the caseload of speech-language pathologists, there is an understanding that the time they have available to

engage in interprofessional practice will decrease. In this case, caseload had a statistically significant relationship to interprofessional practice; however, even with this knowledge a caseload model alone does not appear sufficient to support special education administrators' ability to assign workload to speech-language pathologists.

The second recommended practice targeted by the third research question examined if there is a correlational relationship between caseload and the amount of time speech-language pathologists engaged in professional development or their job effectiveness perceptions associated with professional development. As discussed in chapter IV, the correlational results found when comparing caseload and the time reported engaged in professional development during this study need to be interpreted with caution. The study's research design dictated six specific weeks for workload data collection. During the designated week in April, however, eleven out of the nineteen participants were required to attend a mandatory Westmoreland Intermediate Unit in-service, which facilitated each participant recording five professional development hours. Each school year, agency-sponsored in-service days are limited. For example, the Westmoreland Intermediate Unit schedules five in-service days each year to provide employees with professional development. Given that 1/5 of participants recorded this mandated professional development time, the findings of the correlational analyses are likely inaccurate. Therefore, comparing caseload and mean effectiveness perception may be more accurately indicative of the existence of a relationship.

To further analyze the relationship between caseload and recommended practices, caseload was compared to job effectiveness perception data related to professional development. The Pearson correlational analyses compared caseload to participants' job

effectiveness perception survey results finding a statistically significant negative correlation. Results indicated that speech-language pathologists' perceptions of their ability to engage in professional development decreased as their caseloads increased. In conjunction with previous research by Hutchins et al. (2016), which reported that only 11.8% of speech-language pathologists reported having time to "access and review research," and 10% reported having time to consult with experts, this study's finding are essential for special education administrators to consider. Professional development hours are required by state education agencies and national certification organizations. The negative correlation between caseload and professional development and the previous research indicates that school administrators need to consider the impact of speech-language pathologist caseloads on their ability to engage in professional development. Although the findings are statistically significant regarding caseload having a negative correlation to job effectiveness perceptions regarding professional development, the school administrator may use this knowledge to seek alternative solutions beyond reducing caseload. For example, school administrators could increase the time available during the school year for mandated professional development. The impact of the findings guide school administrators by indicating that speech-language pathologists who maintain high caseloads may have a reduced opportunity to engage in professional development.

Overview of Results

The established research design aimed to determine if there was a correlational relationship between the established research questions to provide special education administrators with guidance when selecting an appropriate model to employ when

assigning caseloads and workloads to school-based speech-language pathologists. Analysis seeking to determine if a relationship exists between caseload and perceived job effectiveness and workload and perceived job effectiveness found no statistically significant relationship. Although findings did not determine a relationship, the lack of a relationship is important for special education administrators to consider when assigning caseloads and workload. School districts commonly employ a caseload model; however, the research findings indicate that caseload or workload alone does not correlate with job effectiveness perception. The lack of relationship provides doubt related to using a caseload model alone to manage the workload of speech-language pathologists to promote opportunities for instructional effectiveness. Further, the second research question analyzed the impact of caseload and time spent engaged in the required job responsibilities of direct instruction and compliance-related tasks. Again, findings indicated a lack of a statistically significant relationship between caseload and direct instruction and compliance-related tasks, further calling into question the reliability of using a caseload model alone to determine the workload of a school-based speech-language pathologist. The final research question did find a statistically significant negative relationship between caseload and time spent engaged in interprofessional practice and caseload and job effectiveness perceptions related to professional development. In both cases, results found that as caseloads increased the amount of time spent engaged in interprofessional practice and job effectiveness perception pertaining to professional development decreased.

In short, the findings of all three research questions provide valuable insight to special education administrators responsible for assigning workload. Although the

caseload model commonly used to assign workload is an invaluable tool, the lack of relationship associated with overall job effectiveness perception and time spent engaged in required practices suggests limitations. Continued research is warranted to further investigate the impact of the caseload model compared to a workload model. This research suggests that school administrators need to consider additional information beyond caseload when assigning workload to speech-language pathologists.

Limitations

The established research design and implementation resulted in two fundamental limitations, which potentially impacted the results and findings. The first significant limitation focuses on the number of participants completing all research study components. At the onset of the study, thirty-four speech-language pathologists volunteered to participate in the research; however, only nineteen participants fulfilled all aspects of data collection. The limited sample size likely influenced the ability to acquire significantly significant results. The second fundamental limitation of the study focuses on the data collection related to the amount of time participants reported engaging in professional development. Participants recorded professional development time during designated weeks over six months. The designated April week, however, fell over a mandated in-service day for the Westmoreland Intermediate Unit. As a result, attendance resulted in eleven out of the nineteen participants reporting five professional development hours during this week. Although participants accurately reported their activities, the schedule in-service day may have skewed the result because the work week was atypical for these participants. Therefore, the reported time spent engaged in professional development was likely inflated.

The focus of the research examined models of workload management employed by special education administrators by targeting relationships between caseload, workload, and perceived job effectiveness. Although the research findings suggest that a caseload workload management model for school-based speech-language pathologists has significant flaws, given the lack of correlational relationships, the research finding did not provide statistically substantial alternatives. Further research is warranted to investigate workload management tools that can be employed by special education administrators that facilitate their ability to assign workload that promotes educational growth for students in the most fiscally responsible manner.

Recommendations for Future Research

The findings of this research study warrant further investigation to confirm and further verify the validity of the results and expand upon the scope of the research. In addition to the research design, each established research question provides an opportunity for further investigation to provide more conclusive guidance to special education administrators, who are tasked with assigning caseloads and workloads to the speech-language pathologist that facilitate effective interventions while also maximizing productivity and promoting fiscal responsibility. The first recommendation would be to conduct the outline research design on a larger scale. As mentioned previously, the study began with thirty-four participants, but only nineteen completed all components of the research study to be included in the data analyses. Nineteen participants did not provide a statistically significant sample. Research on a larger scale may result in statistically significant findings, whereas the current research study only demonstrated trends in a negative or positive direction. Conducting a similar study on a state or national level may

result in more conclusive findings. Increasing the sample size is warranted, specifically targeting the first research question that compared caseload and workload with job effectiveness perceptions. A correlational analysis between caseload or workload and job effectiveness perceptions found a negative trend concerning caseload and a positive trend concerning workload. If conducted on a larger scale, findings could result in statistical significance.

The results of this study, although not statistically significant, suggest a positive correlation between workload and job effectiveness perceptions. If a positive relationship exists between the two variables, further research is necessary to investigate why there is a correlational relationship between workload and job effectiveness perceptions. One possibility discussed is related to workload and productivity. Assuming that highly effective individuals maximize their productivity, one could presume they have a higher workload. The American Speech-Language-Hearing Workload Calculator used in this research study is an excellent tool to collect quantitative data to support the continued investigation. Further analysis to determine if there is a statistically significant relationship and a detailed investigation into the cause of the increased perceptions would result in valuable information for special education administrators tasked with managing the caseload of speech language pathologists.

Additional research is again warranted regarding the second research question that sought to determine a relationship between caseload and required job responsibility. The result of this study indicated that a statistically significant relationship does not exist between caseload and the required job responsibilities of direct instruction or compliance. Special education administrators: however, use caseload as their primary means of

assigning and managing the workload of a speech-language pathologist, given that the state of Pennsylvania provides caseload maximums within school code (Public School Code, 1949). The question remains, *If the caseload model does not provide adequate information to determine the workload of a speech-language pathologist, what model would support this administrative function?*

The third research question, which aimed to identify if a relationship exists between caseload and interprofessional practice and caseload and professional development, which found statistically significant results, opens the door to numerous research studies. The study demonstrated a strong negative relationship between caseload and speech-language pathologists' time engaged in interprofessional practice. Research is growing every day, supporting the benefits of interprofessional practice not only in the educational setting but also within the medical profession; however, the nuances of the topic are extensive. Therefore, further research is warranted to substantiate the benefits and identify the challenges and strategies to overcome these challenges. In addition, the negative correlation between caseload and time spent engaged in interprofessional practice does not provide special education administrators with a suggested alternative to better support school-based speech-language pathologists' ability to engage in the proposed collaborative approach. The third research question also found a statistically significant negative relationship between caseload and job effectiveness perceptions of professional development. This finding, however, was not supported by the results that compared caseload and time spent engaged in professional development due to a flaw in the research timeline. Given the atypical hours reported during data collection week, the results likely do not represent current practice. Nevertheless, future research to repeat this

portion of the study may result in statistically significant findings and support the negative correlational relationship between caseload and professional development. Although the quantitative research design resulted in findings that directly affect special education administrators the data-driven statistics leave many questions unanswered. Qualitative research may prove beneficial in investigating effective strategies for special education administrators to employ to manage the workload of speech-language pathologists in school-based settings. Future research utilizing mixed methods combining quantitative data collected through workload analyses and qualitative data obtained through observations and interviews may also have beneficial implications for special education administrators.

Summary

Special education administrators oversee special education supports and services within school districts. Their responsibilities include assigning workloads to speech-language pathologists that ensure students receive high-quality supports and services that result in meaningful educational benefits. With the increasing demands for special education and rising cost associated with providing supports and services, special education administrators walk a fine line between maximizing caseloads to reduce cost and ensuring students receive adequate instruction. In Westmoreland County school administrators frequently rely on the caseload maximum of 65 established by the state to manage caseloads (Public School Code, 1949). Speech-language pathologists, however, report feeling overwhelmed by their workload. This quantitative research study examined the relationship between caseload, workload, and speech-language pathologist perceptions of job effectiveness.

Chapter I provided an overview of the identified problem and justified why this topic required investigation. Chapter II provided an in-depth review of research currently available related to establishing research questions and explained the impact of legislative and judicial actions that have impacted the field of special education. The quantitative research design, methodology, and timelines were outlined in Chapter III. Chapter IV provided a comprehensive analysis of the statistical findings and the implications for special education administrators. Chapter V discussed the conclusion drawn from the research and how results can be utilized by special education administrators, the study's limitations as well as recommendations for future research. In summary, the research found that the traditional use of a caseload model to manage the workload of speech-language pathologists has merits. When used alone, however, it will likely not provide special education administrators with enough information to ensure students receive high-quality supports and services that will foster educational growth.

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APPENDIX A

ASHA's Weekly Workload Calculator

ASHA Workload Calculator

The purpose of the ASHA Workload Calculator is to allow school-based speech-language pathologists to identify the amount of time they spend on specific direct services, indirect services, compliance and other functions that contribute to overall workload.

Instructions

*Enter the week, your total scheduled weekly hours, and the number of hours you spend performing each task for each day of the week. *(only enter numbers in the blank, colored cells)*
min-to-hr conversion: 60 min = 1 | 45 min = 0.75 | 30 min = 0.5 | 15 min = 0.25 | 10 min = 0.16 | 5 min = 0.08

Week of:	**Scheduled Weekly Hours**
mm/dd/yyyy - mm/dd/yyyy	0.0

Function	**Number of Hours Performing Function**						
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Weekly Total**	**Weekly %**
Direct Services	**0**	**0**	**0**	**0**	**0**	**0**	#DIV/0!
face-to-face pull-out services						0	#DIV/0!
face-to-face in class or other setting services						0	#DIV/0!
face-to-face initial evaluations and reevaluations (adminsiter tests, observe student in class for evaluation purposes)						0	#DIV/0!
Indirect Services	**0**	**0**	**0**	**0**	**0**	**0**	#DIV/0!
analyze environment						0	#DIV/0!
analyze curriculum (Gen Ed)						0	#DIV/0!
attend student team meetings						0	#DIV/0!
score and interpret tests						0	#DIV/0!
write eval summary reports						0	#DIV/0!
conduct research on evidence-based practices						0	#DIV/0!
develop and provide professional development						0	#DIV/0!
sound system and hearing aid trouble shooting						0	#DIV/0!
consult with parents/caregivers						0	#DIV/0!
specific student-related planning (e.g., creating visual aids, binder, etc.)						0	#DIV/0!

Instructions

*Enter the week, your total scheduled weekly hours, and the number of hours you spend performing each task for each day of the week. *(only enter numbers in the blank, colored cells)*
min-to-hr conversion: 60 min = 1 | 45 min = 0.75 | 30 min = 0.5 | 15 min = 0.25 | 10 min = 0.16 | 5 min = 0.08

Week of:	**Scheduled Weekly Hours**
mm/dd/yyyy - mm/dd/yyyy	0.0

Function	**Number of Hours Performing Function**						
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Weekly Total**	**Weekly %**
maintain AAC equipment						0	#DIV/0!
do special student-related preparation						0	#DIV/0!
Enter Additional Function Here						0	#DIV/0!
Indirect Services in Gen Ed Setting	**0**	**0**	**0**	**0**	**0**	**0**	#DIV/0!
observe students in classrooms (for all purposes except evaluations)						0	#DIV/0!
pre-referral activities, including teacher consultation and attendance at meetings						0	#DIV/0!
RTI/MTSS activities						0	#DIV/0!
adapt gen ed curriculum and materials for your students						0	#DIV/0!
connect standards to IEP (including becoming familiar with standards, materials, lessons, texts and projects for which your student is responsible)						0	#DIV/0!
consult with teachers to match student learning style and teaching style						0	#DIV/0!
Enter Additional Function Here						0	#DIV/0!
Compliance to Support Federal, State and District Mandates and Case Management Duties	**0**	**0**	**0**	**0**	**0**	**0**	#DIV/0!
attend staff meetings						0	#DIV/0!

Instructions

*Enter the week, your total scheduled weekly hours, and the number of hours you spend performing each task for each day of the week. *(only enter numbers in the blank, colored cells)*
min-to-hr conversion: 60 min = 1 | 45 min = 0.75 | 30 min = 0.5 | 15 min = 0.25 | 10 min = 0.16 | 5 min = 0.08

Week of:	**Scheduled Weekly Hours**
mm/dd/yyyy - mm/dd/yyyy	0.0

Function	**Number of Hours Performing Function**						
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Weekly Total**	**Weekly %**
attend eval/reeval meetings						0	#DIV/0!
attend student support meetings						0	#DIV/0!
attend other compliance-related meetings						0	#DIV/0!
attend annual review meetings						0	#DIV/0!
attend IEP meetings						0	#DIV/0!
develop IEP						0	#DIV/0!
complete screenings (hearing / SL)						0	#DIV/0!
work on district-wide initiatives						0	#DIV/0!
school duties						0	#DIV/0!
complete daily service logs						0	#DIV/0!
complete progress reports						0	#DIV/0!
score and interpret tests						0	#DIV/0!
write eval summary reports						0	#DIV/0!
complete Medicaid billing						0	#DIV/0!
copying logs, progress reports, evals, IEPs, etc.						0	#DIV/0!
participate in professional dev						0	#DIV/0!
participate in school committees						0	#DIV/0!
travel between assignments						0	#DIV/0!
write funding reports						0	#DIV/0!
supervise support personnel						0	#DIV/0!
supervise grad student						0	#DIV/0!
supervise CF						0	#DIV/0!
write exit summarys and notices for exiting students						0	#DIV/0!
send notices for evals & reevals						0	#DIV/0!

Instructions

*Enter the week, your total scheduled weekly hours, and the number of hours you spend performing each task for each day of the week. *(only enter numbers in the blank, colored cells)*
min-to-hr conversion: 60 min = 1 | 45 min = 0.75 | 30 min = 0.5 | 15 min = 0.25 | 10 min = 0.16 | 5 min = 0.08

Week of:	**Scheduled Weekly Hours**
mm/dd/yyyy - mm/dd/yyyy	**0.0**

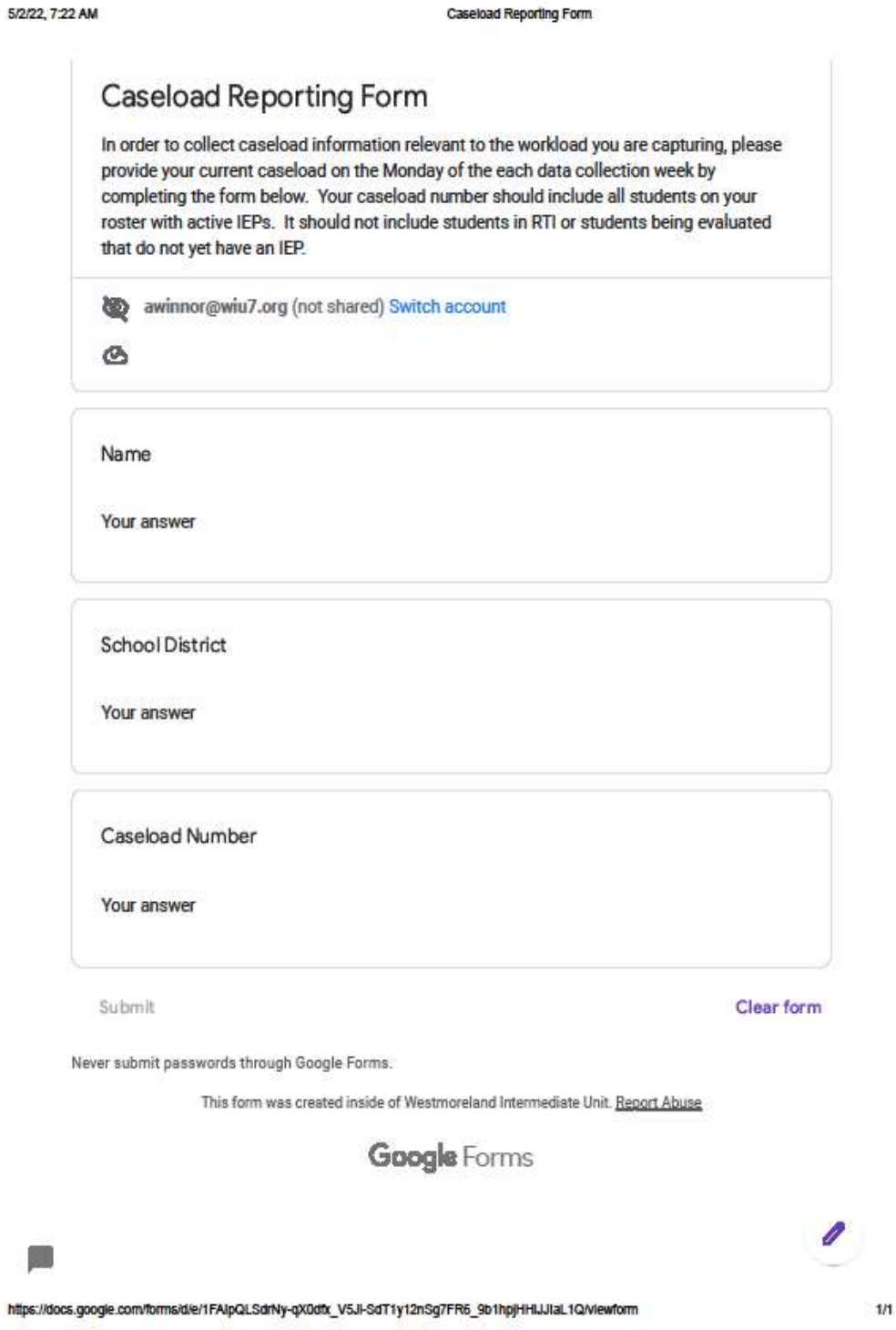
Function	**Number of Hours Performing Function**						
	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Weekly Total**	**Weekly %**
obtain parental permission						0	#DIV/0!
communicate with other school team members						0	#DIV/0!
note-taking related to IEP meetings, etc.						0	#DIV/0!
keep due process files up to date and in compliance						0	#DIV/0!
copying, other clerical						0	#DIV/0!
other case management tasks						0	#DIV/0!
Enter Additional Function Here						0	#DIV/0!
Other Activities	**0**	**0**	**0**	**0**	**0**	**0**	#DIV/0!
schedule/use interpreters for ELLs						0	#DIV/0!
district emails, phone calls, etc.						0	#DIV/0!
Enter Additional Function Here						0	#DIV/0!

Typical Weekly Hrs	30.7
Typical Weekly Hrs	0.5

*The Weekly Workload Calculator can be view on the American Speech Language Hearing Association's website using the link below:
https://www.asha.org/SLP/schools/Workload-Calculator/

APPENDIX B

Caseload Reporting Form



5/2/22, 7:22 AM Caseload Reporting Form

Caseload Reporting Form

In order to collect caseload information relevant to the workload you are capturing, please provide your current caseload on the Monday of the each data collection week by completing the form below. Your caseload number should include all students on your roster with active IEPs. It should not include students in RTI or students being evaluated that do not yet have an IEP.

awinnor@wiu7.org (not shared) Switch account

Name

Your answer

School District

Your answer

Caseload Number

Your answer

Submit Clear form

Never submit passwords through Google Forms.

This form was created inside of Westmoreland Intermediate Unit. Report Abuse

Google Forms

https://docs.google.com/forms/d/e/1FAIpQLSdrNy-qX0dfx_V5JI-SdT1y12nSg7FR6_9b1hpjHHIJJIaL1Q/viewform 1/1

APPENDIX C

Email Authorization from ASHA

Amanda Winnor

From: SCHOOLS <SCHOOLS@asha.org>
Sent: Monday, July 19, 2021 9:19 AM
To: Amanda Winnor
Subject: Re: Permission to Use Workload Calculator for Research

NOTICE: This email message did not originate from Westmoreland Intermediate Unit and is from an external organization. DO NOT CLICK links or attachments unless you recognize the sender and are certain the content is safe.

Hi Amanda,
Thank you for contacting ASHA regarding the use of the ASHA Workload Calculator in research. Permission is not required to use the calculator for your research study. If you plan to reprint the actual tool in a subsequent publication of the study, permission would be required and obtained by contacting permissions@asha.org.
We are happy to hear that you are conducting this research and look forward to your findings! Please don't hesitate to reach out should you have additional questions about the tools and their application.
Sincerely,
Lisa Rai Mabry-Price, MS CCC-SLP
Associate Director, School Services
schools@asha.org

The above email response is based on the information provided to ASHA staff. ASHA is not in a position to verify the material you provided and is therefore not responsible for its accuracy or completeness. ASHA's response to your question is not and should not be construed as legal advice, which can only be provided by an attorney.

APPENDIX D

Speech Language Pathologist Job Effectiveness Perception Survey

Speech Language Pathologist Job Effectiveness Perception Survey

This survey is designed to assess Speech Language Pathologist's perceptions of their job effectiveness related to the job responsibilities outlined on American Speech Language Hearing Association's Weekly Workload Calculator.

Email _____

1. Name

_____

2. School District

_____

3. Number of students on your caseload.

_____

Please indicate your level of agreement with the following statements using a Likert Scale where "1" indicates Strongly Disagree and "5" indicates Strongly Agree.

4. My workload supports my ability to provide effective face to face pull out services.

Mark only one oval.

- ◯ Strongly disagree
- ◯ Disagree
- ◯ Neutral
- ◯ Agree
- ◯ Strongly agree

5. My workload supports my ability to provide effective face to face services within the student's classroom or other setting.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

6. My workload supports my ability to provide effective face to face services to evaluate and reevaluate students.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

7. My workload supports my ability to effectively prepare and plan for instruction including the following activities: analyzing curriculum, scoring and interpreting test results, creating student materials, designing lesson plans, and designing transition plans.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

8. My workload supports my ability to effectively develop and provide professional development.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

9. My workload supports my ability effectively to communicate and consult with parents/caregivers.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

10. My workload supports my ability to effectively prepare and plan for instruction for students, including the following activities: programming Augmentative and Alternative Communication (AAC) devices and maintaining AAC devices.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

11. My workload supports my ability to effectively train teachers/paras/parents.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

12. My workload supports my ability to effectively complete student observations (for all purposes except evaluations).

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

13. My workload supports my ability to effectively engage in pre-referral activities including teacher consultation and attendance at meetings.

Mark only one oval.

- Strongly disagree
-
-
-
-

Disagree
Neutral
Agree

Strongly agree

14. My workload allows me to provide effective preventative services through a RTI/MTSS model.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

15. My workload supports my ability to effectively adapt general education curriculum for my students.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

16. My workload supports my ability effectively to plan lessons that connect student's IEP goals with standards.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

17. My workload supports my ability to effectively collaborate with teachers to match student's learning styles and teaching styles.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

18. My workload supports my ability to attend compliance related meetings including:
staff meetings, evaluation/reevaluation meetings, student support meetings, annual review meetings, IEP meetings and IEP development meetings.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

19. My workload supports my ability to effectively complete speech language and hearing screenings.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

20. My workload supports my ability to effectively work on district-wide initiatives.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

21. My workload supports my ability to effectively engage in school duties (i.e. lunch duty, bus duty).

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

22. My workload supports my ability to effectively maintain accurate student records including the following: completing daily service logs, completing progress reports, scoring and interpreting tests, writing evaluation summary reports, completing MA billing, copying all documentation.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

23. My workload supports my ability to effectively participate in professional development.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

24. My workload supports my ability to effectively participate in school committees.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

25. My workload supports my ability to travel between buildings.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

26. My workload supports my ability to effectively supervise graduate students and clinical fellows.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

27. My workload supports my ability to effectively complete IDEA/Chapter 14 documentation including: PTE/PTRE, ER/RR, Invite, IEP, NOREP and notes.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

28. My workload supports my ability to effectively engage in case management related communication with IEP Team members.

Mark only one oval.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly agree

Survey questions were adapted from American Speech Language and Hearing Association's Weekly Workload Calculator. Retrieved from: https://www.asha.org/SLP/schools/Workload-Calculator/

APPENDIX E

Institutional Review Board Approval

Institutional Review Board
California University of Pennsylvania
Morgan Hall, 310
250 University Avenue
California, PA 15419
instreviewboard@calu.edu
Melissa Sovak, Ph.D.

Dear Amanda,

Please consider this email as official notification that your proposal titled "Relational Inquiry: How Speech Language Pathologist's Caseloads Impact Employee Effectiveness in Public Schools" (Proposal #20-047) has been approved by the California University of Pennsylvania Institutional Review Board as submitted.

The effective date of approval is 8/13/21 and the expiration date is 8/12/22. These dates must appear on the consent form.

Please note that Federal Policy requires that you notify the IRB promptly regarding any of the following:

(1) Any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented)

(2) Any events that affect the safety or well-being of subjects

(3) Any modifications of your study or other responses that are necessitated by any events reported in (2).

(4) To continue your research beyond the approval expiration date of 8/12/22 you must file additional information to be considered for continuing review. Please contact instreviewboard@calu.edu

Please notify the Board when data collection is complete.

Regards,

Melissa Sovak, PhD.
Chair, Institutional Review Board