

INFLUENCE ON CHOICE OF SPECIAL EDUCATION

**AN EXAMINATION OF THE CORRELATION BETWEEN  
PRIOR EXPERIENCE OF WORKING WITH PEOPLE WITH DISABILITIES  
AND CHOOSING SPECIAL EDUCATION AS A MAJOR**

A Doctoral Capstone Project

Submitted to the School of Graduate Studies and Research  
Department of Secondary Education and Administrative Leadership

In Partial Fulfillment of the  
Requirements for the Degree of  
Doctor of Education

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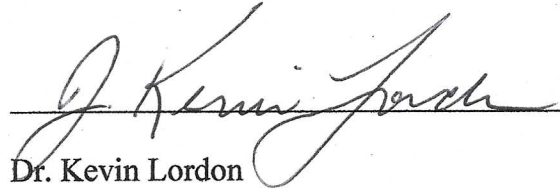
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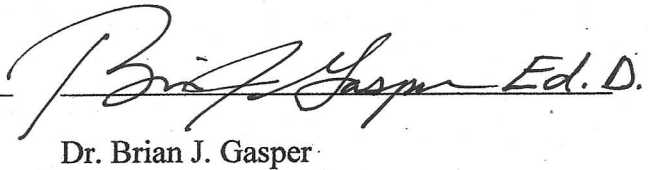
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### **Abstract**

Over the past 45 years, the supply and demand of the special educator has ebbed and flowed, but in most recent times the shortage of qualified special educators has hit a significant point of crisis across the nation causing challenges for school districts to provide the services mandated by the Individuals with Disabilities Education Act. One mechanism to reduce the special educator shortage is for more high school students to choose special education as a major and future career. This study examined the perspectives of current special education majors and the factors that influenced their decision of major choice and examined the degree special education majors report previous experiences with people with disabilities as the greatest factor in their choice of major. The study further researched the degree past Unified Sports Program (USP) participants choose a major related to special education or related services at a higher rate than other majors. Data was gathered through two surveys administered to two different types of subjects, special education majors and past USP participants. Survey participants responded to Likert scaled statements rating their perception of its influence on their choice of major or future career choice. This study evidenced that prior experience of working with students with disabilities was one of the highest influencing factors when choosing special education as a major. Due to a low response rate, further research is needed to determine the degree of influence USP has on choice of special education as a major.

## **CHAPTER I**

### **Introduction**

It is hard to imagine, there was a time when a student's perceived potential or measured mental age was the criteria used to determine the threshold of the value of investing educationally into the child. Before 1975, students with disabilities were educated in segregated schools, institutions, or remained at home and the deciding factor of whether the child attended a segregated setting taught by volunteers or parents or had the privilege to attend the public school and be educated by a qualified certified teacher was whether the student was determined to have an IQ above 50 (Martin et al., 1996). During the current time in history of the rebirth of the pursuit of equity for all, the reminder of where society was prior to 1975 is the necessary somber reminder of the strength of the advocacy many years ago that has led to the enhanced opportunities for students with disabilities present today.

### **Background**

The passage of the Education for All Handicapped Act in 1975, now known as the Individuals with Disabilities Education Act of 2004 (IDEA), afforded the right of students with disabilities to be educated in the public school system and receive a Free and Appropriate Public Education (FAPE). This passage occurred through strong advocacy and the support of the Civil Rights movement and opened the doors of public schools to over a million additional students with disabilities to have access to the same educational opportunities as their peers without disabilities. As a result, there was an immediate need for more qualified educators to provide services to support implementation of the law. Over the past 45 years, the supply and demand of the special

educator has ebbed and flowed, but in most recent times the shortage of qualified special educator has hit a significant point of crisis across the nation (Monnin et al., 2022). The pandemic of 2020 has only exacerbated the shortage of qualified special educators causing significant challenges for school districts to provide the services mandated by the law.

The state education agency (SEA) is responsible to ensure school districts provide the services required under the law by providing supervision and technical assistance. IDEA also requires the SEA to establish and maintain qualifications that ensure personnel are prepared and trained to adequately serve students with disabilities as well as adopt policy that requires local education agencies (LEA) to recruit, hire, train, and retain qualified professionals to serve students with disabilities. Therefore, it is the responsibility of the SEA to provide systemic support to the school districts if there are systemic lack of resources or knowledge to implement the services the students need (United States Congress [USC], 2004).

As a result, the special educator teacher shortage across the Commonwealth of Pennsylvania needs to be resolved through a systemic approach led by the SEA. A primary means to increase the number of special educators in the field is to attract more high school students to choose special education as a major when transitioning to college. To do so, the factors that would influence more high school students to choose special education as a major must be identified.

### **Capstone Focus**

The intent of this research is to examine the factors that would lead a high school student to choose special education as a major. When those factors are identified,

conditions creating those factors can be replicated to facilitate a potential path for high school students leading to pursuit of a degree in special education. The Unified Sports Program (USP) is one example of a potential condition a LEA can create that may set such a path. The USP is relatively new to Pennsylvania. It has expanded over the state over the past few years creating the opportunity where students with and without disabilities participate in authentic sport competitions. Reportedly, participants have indicated that due their involvement in USP, they intend to pursue a career related to special education. This research will further investigate if involvement in the USP influences more students to pursue a career in special education opposed to other opportunities.

### **Research Questions**

1. What are current special education majors' perspectives of the key factors that attributed to their decision to major in a special education?
2. To what degree do college students majoring in special education report previous experiences with people with disabilities as the greatest factor in their choice of major?
3. Do previous USP participants choose a major related to special education or other related services at a higher rate than other majors?

### **Expected Outcomes**

The researcher collected data through two surveys of two sample groups, current special education majors, and past USP participants. This will be an explanatory correlational quantitative research design study. The data from the two samples will be analyzed and compared to gain an overall interpretation of the factors leading to the

choice of special education as a major. Through this research, there will be a comparison of the results of the two samples: 1) Do the students in special education majors report past experience and possibly, participation in the USP as a key factor in their decision to major in special education; 2) Do the USP participants report that prior experience was a key factor in their choice of major; and, 3) How do those data sets confirm or refute that prior experience working with students with disabilities impact the choice of special education as a major.

If the research identifies key factors that influence a high school student to choose special education as a major, the state SEA can provide the required technical assistance to the field and create conditions to replicate those factors and influence more high school students to choose special education as a major and potentially enter the field. Although this strategy is not going to resolve the special education teaching crisis in totality, it would be a positive step with sustainable impact. The infusion of the USP is a critical data point in this study. If participation surfaces as a factor that influences students to choose special education as a major, opportunities to participate can be replicated in multiple school districts and therefore, potentially support the increase of high schoolers entering the field of special education in Pennsylvania through a SEA fiscally supported effort.

### **Fiscal Implications**

The cost to recruit and hire educators is approximately \$20,000 (Carver-Thomas & Darling-Hammond, 2017). Part of this cost is associated with recruitment of new staff. If there was an abundance of available personnel, it would reduce the cost of recruitment. When compared to the cost of high schools implementing programs to expose high

school students to the field of special education, the savings for the educational system as a whole could be significant. The approximate cost to implement the USP per district is about \$7,000 taking into consideration the cost of coaches, transportation, and additional supports. Each team is made up of potentially 10-20 participants. With the goal of exposing more students to the option of special education as a career option, the investment of \$35-70 per participant is a miniscule investment compared to the potential outcome. Recognizing the intentional benefits of offering a USP extend well beyond a future educator recruitment strategy, there is the potential for significant cost savings for the school and special education system of the commonwealth if the research substantiates even a small influence on more students choosing special education as potential career.

### **Summary**

The influence of IDEA has positively impacted the lives of students with disabilities as well as students without disabilities through creating educational opportunities and a more inclusive society. However, one fact that was potentially not anticipated was the inability to have enough personnel to provide the specialized services mandated by the law. The IDEA places the responsibility on the LEAs to recruit, prepare, and retain qualified staff, but also mandates the SEA to provide the necessary supervision and technical assistance to ensure LEAs meet the expectations. The shortage of qualified school personnel is placing all involved, LEAs, SEAs, educators, and students with disabilities, in a position to be ineffective and unsuccessful. To effectively address this pervasive concern, research needs to be conducted to determine the most effective strategies to implement. To effectively conduct the most appropriate research, a thorough

review of the literature was conducted to examine the historical context of both IDEA and the development of the teacher shortage as well as how to best influence the ability to increase students to choose special education as a major to curtail and reduce the expanding gap of supply and demand.



## CHAPTER II

### Literature Review

Across the nation and specifically, Pennsylvania, there is an epidemic of staffing shortages in special education professionals placing numerous barriers on local education agencies (LEA) to provide special education services to students eligible under the Individuals with Disabilities Education (IDEA) as mandated by federal law. As the state director for the Bureau of Special Education (BSE), one job responsibility is to ensure compliance with IDEA and ensure technical assistance in areas of evidenced need. When statewide issues surface, hindering the ability to provide special education services, it is the BSE responsibility to systemically address the barriers impacting the LEAs' ability to address the needs of their students with disabilities. The state education agency (SEA), known as the Pennsylvania Department of Education (PDE), but specifically referring to the BSE in this study, has the obligation under the law and is the ultimate authority to ensure implementation of IDEA which include supervision of the local education agencies effective implementation of services (Office of Special Education Programs, 2020a). Beyond the legal obligation and the professional responsibility to support LEAs to provide services to students with disabilities, as an instructional leader and passionate special educator, the state special education director needs to lead the state administration to resolve any issue hindering the ability to services students with disabilities. It is an increasing concern to view LEAs struggling to meet the responsibilities due to a state level shortage in special educators. To assure that all teaching positions in our nation's public schools are filled by qualified teachers, it will require systemic planning, leadership, and policy change at the state level (Boe, 2006). This holds true for

Pennsylvania as well, positive change will require strategic planning, research-based decision making, and potential policy and/or legislative support.

As a result, the intention of this study is to research a potential strategy to support an increase to the potential pool of special educators for Pennsylvania. The study will compare common influencing factors leading high school students to choose special education as a major in an effort for the BSE to then use the data to provide state-wide supports and initiatives to replicate the high impact factors which could potentially lead to an increase in the number of special education majors in Pennsylvania and then indirectly, potentially impact the number of special educator professionals.

A state director has opportunities to participate in a variety of school events. One activity experienced by this director has been the Unified Sports Program (USP) and the Unified Champion School Assemblies. These events afforded the director to opportunity to interact and converse with coaches, athletes, and families involved in the USP. Through conversations, there was a common theme of the student participants. Student participants reported anecdotally that were choosing a major in special education or a related field because of participating in the USP. This concept resonates as a potential path to increase the number of high school students entering the field of special education through the choice of a major. If there is in fact a correlation between students participating in the USP and choosing a major in the field of special education, it would be beneficial to expand the reach of the USP by encouraging more high schools to participate. It would be an initiative that the BSE could consider increasing the support it provides to the program to have more unified sports teams which would increase the number of high schools to participate in the program. If there are more high school

students participating in the program, it may influence more high school students to choose a special education or a related field as a major in college. As a result, there is necessary research to determine if there is a correlation between participation in the unified sports program and choosing a major in special education.

Upon review of the research, since the inception of special education in 1975 with the passage of the Education for All Handicapped Act, there has been a shortage of special education teachers. Over the past 45 years, the gap between need and resource has ebbed and flowed, but the requirement under the law has not changed. Research on a surplus of special education professionals is limited. However, most recent research reported a crisis in the teaching profession, and special education as being one of the highest need areas (Sindelar, 2019). To increase the pool of special education candidates, there must initially be an adequate number of high school students that choose special education as a major. If there are not enough high school students initially pursuing special education as a career out of high school, it will be very difficult to increase the pool. To attract more high school students to choose special education as a major, one needs to research what the factors are that lead a special education major to choose that career path? Is prior experience with students with disabilities a key factor of their choice of major? If so, does participation in specific activities, such as USP, correlate to a higher choice in special education as a major? These determinations would support the BSE to make systemic statewide decisions to impact the special education professional shortage.

### **History of Special Education**

The history of special education as we know it today is about 46 years old. Although compulsory attendance laws were enacted in the early 20th century, students

with disabilities were not yet afforded an effective education or in some cases, access to the public school system at that time (Yell et al., 1998). As a result, many students with disabilities went underserved by the public education system. The mission of special education was sparked by the advocacy of the civil rights movement of the late 1960s and 1970s which paved the path for the people with disabilities to rally for their cause (Smith & Kozleski, 2005). With the emergence of the civil rights movement, parents, and advocates for students with disabilities were positioned to have a voice and challenged the educational system through a variety of lawsuits. An organization previously known as the Association for Retarded Children and now known as the ARC was established by parents of children with disabilities that were not permitted to be educated in the public school or who had to advocate to educate their children in church basements or community centers (Smith & Kozleski, 2005). The ARC organized a series of right to education lawsuits across the nation. These lawsuits were an organized endeavor to press states to serve students more adequately with disabilities (Stewart, 2020). The lawsuits built upon the foundational case of *Brown v. Board of Education* (1954) emphasizing the 1954 decision that separate education is inherently unequal; therefore, not educating students with disabilities within the public school system represents a violation of their civil rights. The two cases which influenced the passage of future legislation were *PARC v. Pennsylvania* (1972) and *Mills v. Board of Education of District Columbia* (1972). These two landmark class action lawsuits provided the expectation that students with disabilities should have equal access to public education and a Free and Appropriate Public Education (FAPE). Both cases influenced significant legislation which impacted the education of students with disabilities (Stewart, 2020).

In 1971, the Pennsylvania Association for Retarded Citizens (PARC) filed a class action lawsuit on behalf of 14 children with developmental disabilities who were being denied access to public education due to a state law that permitted exclusion of children who did not reach a mental age of five prior to the age of enrollment in first grade (Stewart, 2020). The argument was based on a violation of rights under the Equal Protection clause and Due Process Clause of the Fourteenth Amendment. This class action lawsuit against Pennsylvania state law successfully evidenced that excluding students with disabilities violated the principals of *Brown v. Board of Education* (Stewart, 2020). It further ruled that educating students with disabilities within public school is preferable to an out of district placement. This became known as the PARC consent decree (Stewart, 2020).

A second in the series of right to education class action lawsuits was *Peter Mills v. Board of Education of District of Columbia* in 1972. This lawsuit was on behalf of seven school age children who were denied access to the D.C. public school based on perceived limiting disabilities without due process. The District of Columbia school district agreed there was an obligation to educate students that could benefit from instruction, but due to limited “financial resources”, it was impossible. The court ruled that insufficient funds could not be applied inequitably to a particular population to deny access to education. In essence, schools could not use the basis that there were not enough funds to educate students with disabilities and exclude them as a group, to educate students without disabilities. It also afforded the procedural safeguards including the right to due process hearings to families of students with disabilities. Both class

action lawsuits, and the subsequent 27 Federal court cases, created enough pressure to influence ground-breaking special education legislation (Stewart, 2020).

### **Individuals with Disabilities Education Act**

The two-case law ruling, *Mills* and *PARC* consent decree, laid the foundation for two specific major pieces of legislation that influenced the educational rights of students with disabilities, Section 504 of the Rehabilitation Act and the Education for All Handicapped Children Act (PL 94-142) (Stewart, 2020). Both, Section 504 of the Rehabilitation Act and PL 94-142 were pivotal legislations in imposing the responsibility of the public school system to provide a Free and Appropriate Public Education to students with disabilities in the least restrictive environment. By 1976, there were 3,694,000 students aged 3-21 receiving special education in the public school system (Office of Special Education Programs [OSEP], 2020a). Over the years, there were multiple reauthorizations of PL 94-142 to transform into the Individuals with Disabilities Education Act as we know it today (Yell et al., 1998).

The Individuals with Disabilities Education Act (IDEA) is the federal law that mandates the requirement of states and territories to ensure all students eligible under the law receive a Free and Appropriate Public Education (FAPE). The law regulates how states and public agencies provide services to the 7.5 million students eligible as of the 2018-2019 school year. The law guarantees access to a free appropriate public education in the least restrictive environment while subsequent amendments increased access to the general education curriculum, services for birth to five, transition planning, and accountability for outcomes of students with disabilities. From when President Ford first signed 94-142 in 1975 into legislation until 2019, the United States has expanded special

education services from 1.8 million to 7.5 million children with disabilities access to FAPE (OSEP, 2020b). The transformation in the field has been vast and significant. In the past 46 years, public schools in the United States have gone from a time of exclusion of students with disabilities to the current time when all students with disabilities enrolled in the public school system receive a free, appropriate public education and most spend most of their school day in classrooms alongside peers without disabilities (Boe, 2006).

Free and Appropriate Public Education is defined in IDEA as special education and related services that are provided at public expense, under public supervision and direction, and without charge, meet standards of the state educational agency, include an appropriate preschool, elementary, or secondary school education in the state involved, and are provided in conformity with the individualized education program (United States Congress [USC], 2004). FAPE is the underpinning of special education and is developed through an Individualized Education Program (IEP) process for each student eligible under IDEA. Each IEP is documented in writing annually by a team including parents, the LEA, as well as other required team members (USC, 2004). The IEP is to be individualized based on the needs of the learner created by the qualifying disability to ensure the student makes meaningful educational benefit from the educational opportunity. In addition, the responsibility of FAPE lies with the resident public school district and the supervision of public schools' implementation of the services is the responsibility of the SEA (Bateman, 2017).

The Individuals with Disability Education Act (IDEA) is a robust comprehensive law which contains many requirements for public school districts to comply with providing FAPE. One of the compliance requirements is mandating the specific personnel

requirements of the special education teacher. Outlined in Section 300.156 of IDEA, the SEA is responsible to establish and maintain qualifications to ensure that all personnel that are necessary to implement IDEA (2004) are appropriately and adequately prepared and trained to serve students with disabilities. The law clearly articulates the requirement for all public-school special educators to have a full state certification that complies with the approved state credentials or meet state alternate certification requirements, educators to at least a bachelor's degree, the teacher needs to receive high quality professional development that contain intensive, and classroom focused, on-going support and mentoring. The law also requires in Section 300.1569(d) that stated adopt a policy that includes school districts take steps to recruit, hire, train, and retain personnel who meet the requirements described above (USC, 2004). During this challenging time for school districts, state educational agencies have a legal responsibility to support these efforts to comply with IDEA as well as to exhibit the moral responsibility to provide programmatic leadership to support the school districts to meet the needs of student with disabilities (USC, 2004).

There are significant vulnerabilities and potential risks for the resident public school district and the student with disability if school districts do not have qualified staff. IDEA statute requires federal funding to be provided to state educational agencies contingent on implementing the requirements under the law. States, then in turn, flow the funds to the local education agencies on a per pupil formula basis (USC, 2004). States have the supervision responsibility to ensure the funds are used to comply with the expectations of the Individuals with Disabilities Act. When the implementation of the law is flawed or parents perceive the actions or lack of actions by the school district to be less



than FAPE for their child, parents have a right to an impartial due process hearing to resolve alleged IDEA violations (Office of Dispute Resolution [ODR], 2021). Due process hearings are an opportunity for the parties, public schools, and parents of students eligible under IDEA, to have an impartial decision-maker hear both sides of the argument and provide a legal resolution to the situation and provide a written decision (ODR, 2021). If a parent prevails in the due process hearing, there could be potential fiscal consequences for the school district such as tuition reimbursement for private school placements, compensatory education, and independent educational evaluations (Zirkel, 2013). In addition, if the parents are represented by counsel, the school district may be responsible for the parental attorney fees as well as the district attorney fees (Office of Dispute Resolution[ODR], 2019).

Pennsylvania has one of the highest rates of IDEA due process use in the country with 998 in 2021 (Smith, 2021). As a result of these components of IDEA, procedural safeguards, and the litigious culture within Pennsylvania, the lack of qualified special educators can cause a resident school district to be fiscally and programmatically vulnerable if they are unable to provide FAPE due to a lack of qualified professionals in addition to the potential detriment to the skill development of students with disabilities. Research conducted by the University of Florida CEEDAR Center has demonstrated that special education teachers who have gone through a full preparation program are more likely to provide effective instruction, increase student achievement, and remain in the classroom (Kamman et al., 2020).

### **Special Education Teacher Shortage**

Students eligible under IDEA need high-quality teaching or remedial services (Hilliard, 1992). High-quality teachers are the most influential factor in school to impact student outcomes (Fuller & Pendola, 2020). To be prepared to provide the necessary instruction and services for students eligible under IDEA, special education professionals require specialized training and expertise. Special educators use an array of instructional techniques that include activity-based assessment, individual specially designed instruction strategies, community-based instruction, and direct instruction high leverage practices (Ferguson, 1998). In addition to possessing strong instructional repertoire, special education professionals need to have a set of skills to support navigating challenging situations with assessment requirements, instructional designs, limited resources, evolving curriculum development, as well as engaging families in the IEP process all while implementing a variety of service delivery models (Peters et al., 2001). Based on the particular the needs of a population of students, special educators may need to have strong behavioral management skills, team teaching and consultation techniques, scheduling logistics, as well as the ability to manage additional staff such as paraprofessionals (Welch, 1998). A final and often understated skillset an effective special educator needs is the ability to be a continual problem-solver, have effective communication skills, and as Welch (1998) identified, to be a change agent due to the systemic barriers or resistance to innovative programming potentially encountered in the school system. As described above, special education educators must possess a wide array of knowledge and skills and the state needs to be poised to provide necessary technical assistance to support educators to support students eligible under IDEA.

As evidenced above, ensuring there is a pool of qualified special education candidates to support the field is a critical endeavor. Without special educators that have been trained to possess the knowledge base and instructional skill set, it would be difficult for school districts to ensure students with disabilities are able to receive the FAPE entitled under IDEA, make meaningful progress to become contributing members of their society, and avoid costly unnecessary due process or other fiscal consequences. The trend regarding having sufficient special educators nationally has ebb and flowed over the years. As defined by Boe (2006), the demand for special education teachers is the number of SETs employed in United States schools. Between 1987-2003, this figure increased reaching 400,000 special education teachers in 2003 (Boe, 2006). This trend paralleled the increase in students requiring special education services until 2000 when the gap began to grow reaching 12.6% by 2002, however, Boe emphasized that teacher demand for fully certified teachers for public school aged 6-21 has been chronic since 1987-1988.

These trends continue today. The public school system has been impacted significantly with a lack of available educators, which was only exacerbated by the pandemic (Monnin et al., 2022). However, this crisis started well before the COVID-19 Pandemic. Between 2009 and 2014, higher education teacher preparation program enrollments decreased by 35% (Sutcher et al., 2016). According to a 2014-2015 educator supply and demand survey, special education was listed in the severe shortage area substantiating over half of all the severe teacher shortages represented in the survey (Sutcher et al., 2016). Special education teacher shortages reached 8% by 2016-2017 (Sindelar, 2019). The rising demand for special education teachers combined with

inadequate supply from deteriorating teacher preparation programs has created a shortage of crisis proportions (Kamman et al., 2020). In 2017-2018, 46 states reported teacher shortages in special education (Cross, 2017).

Special education teachers have the essential role of ensuring students with disabilities receive a quality education (American University, 2020). The reduction in workforce caused the increase to the average student to teacher ratios from 14:1 to 17:1 beginning in 2005 to 2016 (Sindelar, 2019). Increased workload is one factor leading to less special educators entering or remaining in the field (Samuels, 2018). Due to less high school students choosing special education as a major, teacher preparation program enrollment declined by 35% from 2009 to 2013 (Aragon, 2016). As a result, there are less available teacher preparation programs. In California alone, teacher preparation program enrollment has dropped by more than 75% from 2001 to 2014 (Carver-Thomas & Darling-Hammond, 2017). Simultaneously, there has been a steady increase of students in need of special education services, and therefore, a higher need for special educators over the past 10 years. Office of Special Education Programs indicated there has been an increase of students in need of special education from 3.6 million in 1977 to over 7.5 million in 2018-2019 (OSEP, 2020c). The demand for these highly qualified professionals is increasing while the gap in available teacher candidates grows. The lack of qualified staff significantly impedes the ability of students with disabilities to become prepared for college or career (American Speech and Language Association, 2021).

Pennsylvania is not immune to the staffing shortages. The Pennsylvania state education agency website indicates an increased demand for teachers in the state, fewer young people entering the profession, 33% fewer college students completing the

education program, and a drop in Instructional I certificates by 73% between 2013-2014 and 2018-2019 (Chapin, 2021). Historically, Pennsylvania had a reputation of being a resource of qualified teachers for other states. However, research conducted in 2018-2019 by Penn State University (PSU) noted a drastic decline in the supply of teachers in Pennsylvania (Fuller & Pendola, 2020). The PSU research identified a serious dramatic decline in the supply of new teachers, which was greater than most other states across the nation. The research also indicated that Pennsylvania had a lower attrition rate than most states with an impending increase in percentage of attrition due to impending retirements (Fuller & Pendola, 2020). These shortages and attrition rates include special education teachers, which is more chronic than previous years (Fuller & Pendola, 2020). Finally, Fuller and Pendola (2020) did not predict improvements in the teacher shortages due to continued low preservice teacher graduates and the declining teacher reserve.

Simultaneously, Pennsylvania has seen a steady increase of students in need of special education services. The earliest 2002-2003 public report of student eligible for special education in Pennsylvania indicated there were 245,161 students, 13.5% of the total public-school enrollment. In the most recent 2019-2020 publicly available report of students eligible for special education in Pennsylvania indicates 307, 827 students, 17.8% of the public-school enrollment (Rissinger, 2020). That is an increase of over 60,000 students in need of special education services over the past 17 years. The increased number of students requiring specialized services combined with the decrease of available qualified staff is creating a crisis in Pennsylvania public school system. As part of an effort to increase the supply of qualified special education teachers, Boe (2006) recommended the expansion of the production of novice special education teachers. He

also emphasized that the responsibility to reverse this negative trend lies with the state department (Boe, 2006). To fulfill the responsibility of the state education agency to support local education agencies, the state needs to develop a systemic approach to ensure more high school students enter the field of special education. A potential ingredient to this solution would be to ensure more high school students need to choose special education as a major.

### **Factors Impacting Choice of Major**

As a result of the evidenced need for an increase of qualified special educators, a resource to potentially tap of a viable pool of future educators is in every high school. Every high school is filled with the future workforce and as a result, potential future special educators. A conceivable solution would be for Pennsylvania to employ high impact strategies to attract more high school students enter the field of education and choose special education as a major. To have such an influence, one must understand what are the factors that contribute to the student's choice of major.

Research has indicated that making the decision as to what a person's career is one of the most critical decisions a high school student needs to make (Kazi & Akhlaq, 2017). There is perhaps, no college decision that is more "thought-provoking, gut wrenching and rest-of-your life oriented-or disoriented-than the choice of a major" (St. John, 2000, p. 22). As a result, providing information and guidance to high school students is a beneficial opportunity to support and provide influence for their decision-making process.

There have been many studies that have examined factors that have influenced a career choice or major choice of high school students. A study conducted by Pascule

(2014) indicated that the viability of employment in the career after college was the prevalent factor in college major choice. She suggested, however, that more thoughtfulness go into the decision-making process to ensure career success opposed to an external factor of ensuring employment drive the choice and that students receive guidance to make career decisions based on aptitude, interest, and personality. She also emphasized that experiencing the career will also help students to make good career decisions (Pascule, 2014).

Kazi and Akhlaq (2017) examined the factors that influence high school students' choice of major. The purpose of this research was to see the factors which affect the choice of career among students. Factors such as parental education, profession, and income were among factors examined. The study surveyed and interviewed 432 college students and concluded that parent influence was the most significant factor followed by influence from peers, gender, print media, financial reasons, and interest, as well as, that there needed to be a balance between student choice and guidance by parents and teachers to support students to choose a career which a match for their abilities and interest (Kazi & Akhlaq, 2017).

O'Toole et al. (2017) conducted a study that examined students that choose safety and health as a major and the factors that lead them to that choice. The study of 236 students revealed that more than 50% of participants indicated that they transferred into the safety and health program from a different degree after exposure from a friend or professor, while 37.9% of the participants indicated that they transferred into the program from another college and different major. This data represented 87.9% of those that were currently enrolled in the safety and health major during this study started their post-

secondary path of study in a different career path (O'Toole et al., 2017). What caused the to change? The research suggests that once students were exposed to the career of safety and health more students recognized it as a viable career option and as a result, then choose it for a career. Without exposure to the health and safety major, students had no frame of reference to know it as an option for them to choose as a career option (O'Toole et al., 2017). The conclusion of this research was that there is not enough information at the high school level about the careers in safety and health to guide high school students to choose it as a career path directly following graduation (O'Toole et al., 2017). This concept parallels the concept for high students' knowledge base of special education as a viable career path. For students to consider special education as a career option, they will need exposure to that potential prior to choosing a major. If they are not exposed to the option, they would never know it may be an area of interest and desire to major in college, but with exposure and opportunity, more students would recognize special education as a potential major and/or career option.

Edmonds (2012) conducted research to expand the examination of influences on student's college major choice by examining the factors identified in three categories: practical reasons, interpersonal relationships, and personal reasons in 2021. Her research evidenced that all three factors provided influence on a student's major choice. She concluded her paper with a point that although the factors influencing choice of major maybe be both internal and external, individuals are always evolving and may be reshaped by new experiences. It is critical to provide ample experiences to high school students to ensure they are aware of future options.



Beggs et al. (2008) examined six factors attributing to the choice of major. The six factors in ranked order were match with interests, major attributes, job characteristics, financial success, psycho/social benefits, and information search (Beggs et al., 2008). A main point that Beggs et al. made was that although match with interests, attributes of the major, and job requirements, were the highest ranked factors contributing to the choice of major, how did students learn those factors if they did not do research? They identified the lack of research by the lowest score falling in the information search variable. They contemplated in their discussion a “quandary” of where were the candidates getting their information to know the attributes and job requirements if they were not doing research. They concluded that a possible consideration was family or friends provided the information influencing major choice (Beggs et al., 2008). However, experience also provides a wealth of direct information gathering regarding job requirements and whether it is an interest match or not for the candidate.

Fizer (2013) examined the factors that lead students to choose agriculture as a major. The study researched a group of agriculture majors. The participants rated factors that lead to their choice of major through a survey and interview. Results indicated 20% of the students indicated that experience with the Future Farmers of America and 4-H club was the main factor influencing their choice of major. Ironically, he did not find a positive or negative correlation of already being a farmer or a farming family (Fizer, 2013).

Another lens to examine the choice of major or career is to study the factors leading to a voluntary career change. Such a study was conducted by Murtagh et al. (2011). Eight women were interviewed that choose to do a voluntary career change.

Through a series of semi-structured interviews, the women described their experience for a career change that occurred within three years from the initiation of the study. Five out of the eight participants indicated that there was no plan to change careers, but exposure to a new different option caused them to desire the change. They concluded that people do not use rational means to decide on a career, but use emotion, intuition, and cognition to make their informed decision. Upon conclusion of their study, their data indicated that most participant's decision for a career change was unplanned, but exposure to a new option provided them opportunities that eventually led to a new career. The research further suggested that the clients should be encouraged to explore many options and be in tune to their feelings and to the experiences in all aspect of life to support the decision-making process (Murtagh et al., 2011).

Given the critical need to recruit more qualified special educators, understanding why individuals enter special education may provide useful information to recruit more individuals to enter the field. Zhang et al. (2013) examined factors that influence teacher candidates' intention to pursue a career in special education by interviewing 214 preservice teachers. Two of the most important predictors of future special education teachers from the study were interest and career outcome expectations. One conclusion from Zhang et al. indicated preservice teachers' personal and work experiences with individuals receiving special education services directly impact their desire to work with individuals with special needs, and thus indirectly influences their intention to pursue a special education career. The results of this study emphasis the fact that if the goal is to have more high school students to choose special education as a major, they must first be exposed to that as an option as part of the career exploration or high school experience.

Specifically examining factors which motivated individuals to initially pursue careers in special education was a study conducted by Stephens and Fish in 2010. This study investigated factors which motivated individuals to initially pursue careers in special education, factors which contributed toward their plans to remain or leave the field, and their perceptions of school districts' effective and ineffective recruitment and retention practices. The study solicited 15 individuals employed in public schools in Texas who initially pursued careers in special education to participate in semi-structured telephone interviews. Most interviewees indicated that they initially pursued a career in special education due to their empathy towards serving students with special needs. One interviewee indicated it was not until she spent time substituting in a special education classroom that she realized she wanted a career in special education because those children were the ones that touched her heart (Stephens & Fish, 2010). Multiple other interviewees described personal experiences with people with disabilities as guiding their decision to pursue special education as a career (Stephens & Fish, 2010). The results of this study show the strong impact that prior experience with individuals with disabilities has in influencing one's decision to become a special education teacher.

A second study affirming prior experiences with individuals with disabilities as a defining factor influencing a person's decision to pursue a career in special education was conducted by Reeves (2018). Reeves interviewed 21 graduate students on three topics: background, factors contributing to a career in special education, and recommendations for teacher preparation programs to recruit more special education teachers. Although backgrounds varied, all participants reported prior experience with people with disabilities and the most frequently stated recommendation for recruitment of special

educators was exposure and more experiences with individuals with disabilities. This study highlights the need to continue promoting disability awareness, integration, and the positive aspects of special education as a career choice (Reeves, 2018).

The concept of disability awareness and integration is not a new concept to the field of special education. There is already a built-in mechanism to support this exposure through the legal requirement to educate students with disabilities in the least restrictive environment (ODR, 2019). Although not specifically stated in law, the inclusion movement is built upon the least restrictive environment clause of IDEA and a mechanism to support the mission of exposing students without disabilities to the field of special education in a natural context (USC, 2004). As described by Hehir, inclusive education is characterized by presumed competence, authentic membership, full participation, reciprocal social relationships, and learning to high standards by all students with disabilities in age-appropriate general education classrooms, with supports provided to students and teachers to enable them to be successful (Hehir et al., 2016). Inclusion is the act of ensuring adjustments to instructional strategies and classroom structures to reduce barriers to access to ensure all students with and without disabilities have the equal opportunity to engaging in learning and participate in the classroom environment authentically with same aged peers (Kaplan & Lewis, 2013).

Abt Associates conducted a review of 280 studies from 25 countries (Hehir et al., 2016). Upon review and synthesis of 89 of the studies, it was firmly concluded that there is clear and consistent evidence that inclusive educational settings can confer substantial short- and long-term benefits for students with and without disabilities (Hehir et al., 2016). A connection can be made from the theme of this study. Research on effective

inclusive schools indicates that inclusion can have important positive benefits for all students, meaning students with and without disabilities; Beyond the efforts to ensure all students are valued as part of the school system, a residual benefit to students without disabilities can have experience of interacting with students with disabilities and potentially be exposed to future potential career options. Without inclusion, students without disabilities would have limited opportunity for that initial exposure.

### **Special Education Recruitment**

The solution to the special education staffing shortage is multifaceted, but it starts with having more high school students recognize it as a viable career option. There is a readily available source of potential special educators in every high school across the nation, however, very few students consider teaching as a potential career (Fire, 2020). Despite an almost endless list of possible study programs and occupational opportunities, high school students frequently focus on pursuing a small number of well-known study programs. If students do not have the necessary information to be aware of the endless career options, they tend to choose the most known career options. Research reveals that it is critical to guide high school students to suitable majors through workshops, counseling services, or other opportunities will lead students to choose less known major options (Piepenburg & Fervers, 2021). Without exposure, students may not realize the array of career options available to them. Early exposure and intentional collaborative efforts between school age and post-secondary institutions can lead to more high school students entering the field of special education.

There are some current initiatives that are intentionally trying to capture high school students prior to graduation and lead them to a career in education. The Grow

Your Own Pathways is an initiative for school districts to develop a pipeline from high school to college to back to the school district as educators. The school provides exposure to career options, college credit opportunities in high school, summer employment, fiscal support, and a guided pathway into a teaching position to support educator vacancies in that district (Fire, 2020). This initiative recognizes the strength of the pathway from high school student experience to choose of major and then career.

Another promising strategy for addressing the problem of shortages is a partnership with higher education educator preservice programs. A collaborative partnership that supports career counseling at the high school level with workplace exposure, coordinated training and job placement, is a strategic partnership that can address district supply by facilitating high school student connection to the career of special education (Demonte et al., 2016). Many public schools in Pennsylvania have a neighbor higher educational system that would support such initiatives. If there was the ability to introduce the high school students to the field of special education through experience and career counseling and then facilitate the path with a local university, it may support more students to enter the field of special education.

The examples above are attempts to address the shortage of special education educators. However, the following questions surface: Are there other proactive measures a high school can take to influence more high school students to consider special education as a potential major or career? Are there additional initiatives that can provide the exposure to the field as the research suggests prior to the critical decision-making time to support more students to recognize special education as a viable and preferred career option? Studies have confirmed that work or volunteer experience involving

people with disabilities is a significant predictor of someone choosing special education as a career (DeSutter & Lemire, 2017). As a result, are there ways schools can expose their high schools' students to individuals with disabilities prior to choosing a major so they minimally are able to recognize special education as a viable career path?

Research conducted by Strauss et al. (1998) found that about 40% of teachers were employed in the district in which they attended high school (Strauss et al., 1998). As a result, the more active and committed school districts are to exposing their high school students to the field of special education proactively, the more influence they can have in possibly producing a pool of special education candidates to hire in the future and potentially impact their own future pool of special educators. There are several ways that high schools can expose their students to the field of special education.

The inclusion movement provided the framework to ensure students with disabilities were educated in the least restrictive environment alongside of their same age peers (Hehir et al., 2016). It can be assumed that students have had interaction and minimal exposure to students with disabilities in their classes. However, research has indicated that side by side exposure does not afford the same opportunity as authentic active engagement. Providing opportunities for students without disabilities and with disabilities to be actively engaged could increase the exposure of each other and potential career options.

Volunteering in a variety of ways while in school can enhance a person's exposure to potential career options (DeSutter & Lemire, 2017). Volunteerism can support career development and support the job search process (Ellis, 1993). United Health Group found that 49% of people new to volunteering said that the action helped

with their career in the paid job market. The same study found that 56% of new volunteers believe that the action will help their career in the future (Volunteerhub, 2021). If schools encourage students to volunteer while in school and include volunteering with students with disabilities as an option, it may provide an opportunity for exposure to students with disabilities. By providing volunteer options with students with disabilities while in high school, high school students could be exposed to the field of special education prior to choosing a major and have more information to make an informed decision. They may discover that the field of special education is an option, they may learn the multiple different aspects of the field such as educator, speech therapist, or paraprofessional, and may experience aspects of the field prior to making the choice of a college major. Quite possibly exposing more students to the field of special education in an intentional manner will increase the number of students in high school choosing special education as a major.

There are multiple options to provide student volunteer experience in schools with disabilities, students could be teaching assistants, there could be peer buddy programs, there could be integrated work crews, lunch buddies, or peer matching in extracurricular activities. There are also opportunities evolving for students with and without disabilities to participate in activities together. As study conducted by Kropp and Wolfe (2018) provided the opportunity for college students without disabilities and adults with disabilities to go on a Spring break trip together. The college students created journals during the week and commented on new discoveries such as the realization that they were more similarities than differences between the two groups of students (Kropp & Wolfe, 2018). Opportunities like this can help build relationships between students with and



without disabilities, and potentially, indirectly expose a person to a potential future career. A similar opportunity exists at the high school level known as the USP. The USP provides people with and without disabilities the opportunity to play on the same sports team and have authentic participation as team members (Special Olympics, 2021a).

### **Unified Sports Program**

Throughout the 1960s, Eunice Kennedy Shriver pioneered the Special Olympics initiatives starting with a camp in her back yard leading to the first international Special Olympics Summer games in Chicago, IL in 1968. At that moment, there were 1,000 people with intellectual disabilities from 26 U. S. states and Canada competing in track and field and swimming. Today, Special Olympics provides athletic competition for more than four million athletes, with 1 million volunteers worldwide across 229 Accredited Special Olympics Programs in over 170 countries. Special Olympics offers 32 Olympic-type sports and more than 50,000 competitions per year (Special Olympics, 2020).

The USP is a sub initiative of the Special Olympics and is designed to provide the opportunity for students with and without disabilities to participate in extracurricular sport teams. Beau Doherty, Special Olympics Connecticut President, created the USP in the 1980's and today there are 1.6 million USP teammates competing in over 30 sports around the world (Special Olympics, 2021b). The teams are made up of student athletes with and without disabilities that compete against other unified sports teams from neighboring school districts. The mission is to promote equality and inclusion (Special Olympics, 2021a). Special Olympics has crossed from a segregated sporting events for people with disabilities into the mainstream sporting option world evidenced by global

sponsorship by ESPN Olympics Unified Sports since 2013 and having state high school interscholastic sports sanctions.

Unified Sports joins people with and without intellectual disabilities on the same team. It was built by the belief that training together and playing together will lead to friendship and understanding. Having a sport in common is just one more way those preconceptions and false ideas are swept away (Special Olympics, 2021a). An important characteristic of the program is that all the participants, student athletes with and without intellectual disabilities, are of similar age and similar ability and have the necessary skill level to participate in the sport (Hardman & Seiperstein, 2001). Tens of thousands of athletes in more the 6,500 schools across the United States play on a USP teams.

According to an evaluation of schools, there are significant benefit to schools and students to have a unified sports team. A particular fact substantial to this study is that 97% of high school seniors reported the Unified Champion Activities improved the schools, 93.8% of the participants Agree that participation in the program supported them to be more comfortable talking with people with disabilities, and 97% plan to participate in the program again (U.S. Department of Health and Human Services, 2019). This is evidence of an increased comfort level of engaging with student with disabilities that may not have occurred without the structured opportunity provided by the unified sports program.

Research conducted by the Special Olympics reported in the 2015 Annual Report that participation in USP supports students with and without disabilities to interact in more diverse ways and settings such as in the hallways and texting. The report indicates that the perception of inclusion has been enhanced by the Unified Sports initiative by

providing the opportunity for students of all abilities to interact more readily while students without disabilities see the value of including students with disabilities in their school (Special Olympics, 2015). Annually, schools are recognized as Unified Banner schools and celebrate with a school wide pep rally.

Seeing the students with disabilities activity and positively engaged in the school community provides the visual of an opportunity that may not have been otherwise obvious to non-participating students without the full school engagement requirement of the program. This is evidenced by a Unified Sports coach's comments "whole school engagement" provides the opportunity for students and staff not involved to be exposed through the assemblies "spreading" the opportunity. The 2015 Annual Report also supports the premise that even students who do not directly participate in USP benefit from it being part of their school culture. An indirect benefit of the program is that it also exposes students not directly involved with the USP to minimally the awareness of opportunities to volunteer with students with disabilities through the publicity of the assemblies and sporting events (Special Olympics, 2015). Although much more wholistic values to the school system, this exposure also may residually plan seeds in students' minds of high school students contemplating their future of potential career options.

The USP has been expanding in Pennsylvania over the past four years. In Pennsylvania, The Special Olympics Interscholastic Unified Sports Program is supported by the Pennsylvania Interscholastic Athletic Association (PIAA) and the Bureau of Special Education at the Pennsylvania Department of Education. During the 2020-2021 school year, Unified Sports was in 98 schools in 12 out of the 67 counties. as well as Philadelphia and Pittsburgh have a unified sports team. The sports team may include

track and field, indoor bocce, and soccer (School District of Philadelphia, 2021).

Currently, 225 schools in 38 out of the 67 counties (Special Olympics, 2022). The initiative is expanding across the state at a fairly rapid pace.

There is extensive research around the impact of unified sports on the students with disabilities regarding self-worth, self-determination, athleticism/activity level, feeling of acceptance, the impact on social inclusion, the impact on bullying, the impact on the perception of students without disabilities. Coaches mentioned improved confidence, enhanced communication, and improved social inclusion (Special Olympics, 2020). However, there is little research on the impact of unified sports on the impact to the student without disabilities. There is research regarding their acceptance and understanding of people with disabilities. According to research, 79% of USP teammates without intellectual disabilities report increased understanding of people with intellectual disabilities (Special Olympics, 2020b). There is not a surplus of research around the life impact of unified sports on the participants. However, anecdotally, students have reported to coaches that because of participating in the USP, they have decided to choose a career in the field of special education. It would be purposeful to determine what the prevalence is of the partner students participating in the unified sports program and the correlation of choosing a major within the field of special education. If a positive correlation was evidenced, there would be benefit to the Pennsylvania to expand the opportunity to more schools.

### **Conclusion**

This literature review serves to build the foundation to attempt to study a potential support to the special education staffing shortage in Pennsylvania. It is evident that there

is a crisis need for qualified special educators. The special education staffing shortage for school age 5-21-year-olds with disabilities has been in existence since the inception of special education services; however, the pandemic has exacerbated the shortage creating a statewide and national crisis. If there is not a systemic approach to address the crisis, school districts will not be able to satisfy their legal and ethical responsibility to provide the FAPE as mandated under the IDEA. This will potentially negatively impact the progress of students with disabilities and create the condition where school districts are vulnerable to have legal and fiscal consequences due to not meeting their obligation under the law. A greater concern of the researcher is the long-term potential detriments to the progress of students with disabilities without the qualified passionate staff to support their unique abilities. As a state education agency, Pennsylvania has the supervision and technical assistance responsibility to ensure local education agencies have the supports in place to meet the expectations under the law. The research indicates that prior exposure to students with disabilities is a factor contributing to the choice of special education as a major. The intent of this study is to determine what factors led special education majors to choose their major and if there is a correlation between previous participation in the USP and the choice of special education as a major.

Pennsylvania statewide special education initiatives need to be led out of Bureau of Special Education (BSE) which include addressing the special education personal shortage, and in this moment in time, there does not appear to be a greater responsibility or sense of urgency. The Director of the Pennsylvania BSE will need to have the appropriate information to support the cause and this research will support the BSE to make informed decisions and recommendations. This research will have the potential to

have a significant impact Pennsylvania's ability to support local educational agencies to delivery appropriate services for students eligible under IDEA by increasing the pool of qualified special educators. The information from this research will help to support decision making to ensure efforts are directed toward best practices. If in fact, more students chose special education as a major after participating in the USP, it may be an initiative the BSE may want to increase support to increase the number of special education majors. It is anticipated that the outcomes of this research may support more students to enter the field of special education and therefore, support the ability to school districts to ensure students with disabilities are receiving the services which they are entitled to by having an ample supply of qualified special education professionals.

### **Chapter III**

#### **Methodology**

The literature review highlighted factors that influence how people choose their college major. A common theme surfacing through the research, regardless of the type of major, emphasized prior exposure or experience in the specific field. As this information relates to the current study, there was evidenced influence of prior experience with students with disabilities in master's level students and their choice of special education as a major (Reeves, 2018). This study highlighted prior experience as a precursor to becoming a special educator of master's level candidates, but there was limited research found evidencing the key factors that influence high school students to choose special education as a major, but one would assume the facts could be generalized. This study intends to test this generalization concept. The literature review also exposed the current staffing shortage in the field of special education and the quickly approaching epidemic of not having the appropriate human capital resources to provide the services required by law for eligible students in need of special education services (Kamman et al., 2020). The literature review surfaced the potential detrimental outcomes for students with disabilities and local education agencies when there are not appropriately qualified educators, which include potential risk to students achieving their potential as well as fiscal implications through costly due process claims (Zirkel, 2013).

Prior experience to a field or potential career is a primary influencing factor when students are choosing a major. Another fact surfaced through the literature review that people tend to choose a major or career option that is most known to them or the community and not choose lesser-known options (Piepenburg & Fervers, 2021). To

address the current staffing crisis and to ensure more high school students choose special education as a major, a study was conducted to determine what are the key factors that may influence more high school students to recognize special education as a potential career and choose it as a major. This study examined key factors that have an influence on a student's choice of major and correlated those factors to a student's choice of special education as a major. It further examined the relationship of student's participation in the USP and its impact on exposing students to the field of working with people with disabilities and therefore, having potential impact on their future career options. This non-experimental quantitative predictive correlational study intends to examine how prior experience with students with disabilities correlates with students' choices of special education as a major. The study intended to further investigate the experience with students with disabilities through the USP and if there is a correlation to a choice of a career related to special education. The study examined special education major survey responses to obtain data pertaining to student perspectives on the degree of influence particular factors had on their choice of major. It further surveyed past USP participants. The past USP participant survey responses provided data to determine how their involvement in USP correlated or did not correlate to their pursuing potential future career choices related to working with students with disabilities. The following chapter will review the methodology used to conduct the research described above.

### **Purpose**

The field of education is in a state of emergency. There has been a general trend in the decrease of the available teacher pool over the past 10 years and the pandemic has only exacerbated the circumstance. There needs to be concerted effort directed toward



increasing the amount of qualified special educators to support the education system to ensure this generation of students receive a quality education. For this purpose, there needs to be more high school students choosing special education as a career option when transferring to college. For more high school students to choose special education as a major, research needs conducted to determine what the factors are that influence high school students to choose special education as a major. The intent of this quantitative study is to examine the key factors that may influence students to choose special education as a major to use the information to replicate conditions to attract more high school students to choose special education as a major. This mission is to use the information to proactively respond to the special educator staffing shortage. Based on the information that is revealed, there may be additional programs or activities the state can support to increase the number of high school students entering the field of special education. Although the special education personnel staffing shortage is extensive and multi-faceted, understanding why special education majors were attracted to the field would allow the Pennsylvania to create similar opportunities in a more equitable manner across the commonwealth as one of many efforts to address the crisis.

The review of the literature revealed an array of common factors that influence students as they are choosing a college major. Those identified factors were used in the creation of the survey questions for special education majors to determine how those factors also may have contributed to a person's decision to major in special education. One of the key factors identified in the research was prior experience in the major area was a key influencing factor and the lack of exposure to a particular field created a void of knowledge for specific career options (O'Toole et al., 2017).

The research intended to measure the correlation between prior experience of working with students with disabilities and the survey participants' choice in the special education major. The researcher also wanted to further examine an expanding opportunity occurring across the nation, the USP, to determine how that initiative may have provided experience with students with disabilities prior to the time to choose a major and if that experience influenced the participant to choose a career related to special education. To gather this data, a second survey was provided to past USP participants to gain their perspective of their experience with the USP and its impact on their future career choice. If the researcher was able to identify what are current special education majors' perspectives of the key factors that attributed to their decision to major in a special education, specifically, to what degree do college students majoring in special education report previous experiences with people with disabilities as the greatest factor in their choice of major, it would provide influencing factors to replicate in an effort to potentially increase the number of high school students entering the field of special education. If prior experience is identified as a main factor influencing students to major in special education, opportunities could be created at the high school level to ensure more high school students can participate in activities with students with disabilities. Finally, if the researcher was able to substantiate that prior experience working with students with disabilities through participation in the USP influences high school students to choose special education as a major, it would identify one high impact intervention to expand across more settings. As a result, the following research questions were identified:

1. What are current special education majors' perspectives of the key factors that attributed to their decision to major in a special education?
2. To what degree do college students majoring in special education report previous experiences with people with disabilities as the greatest factor in their choice of major?
3. Do previous Unified Sports participants choose a major related to special education or other related services at a higher rate than other majors?

### **Setting & Participants**

This action research study was conducted between January 31, 2022, and February 11, 2022, via on-line surveys. There were two surveys distributed to two different sample groups. Web-based surveys are an option to secure responses in a secure cost-effective manner. SurveyMonkey is a website that allows the researcher to develop the survey, publish online, and use them to collect data efficiently (Mertler, 2017). The first sample group was current special education majors, and the second sample group was past USP participants. The samples were targeted random samples. The distribution of the survey occurred by someone other than the researcher via an on-line platform by either a current special education professor from one of the chosen universities, the Unified Champion Schools Directors of the USP that had access to past participant email addresses, or a Unified Sports Coach.

The Special Education Major survey (Appendix A) was distributed to three different classes of special education majors at three different universities and yielded 47 participants. Two universities, Millersville University and East Stroudsburg University, were public universities and the third, Saint Vincent University, is a private university.

During the beginning of the Spring 2022 semester, the university professors provided the prepared study email and link to approximately 90 students from the three different universities. The requirement was the participant needed to be a current special education major regardless of the time in the program. Each professor distributed an email to their current special education majors with an opening statement from the professor and then a prepared request from the researcher for participants from the researcher with the survey link embedded in the body of the mail. See Appendix B. The participation was voluntary. There was a two-week window for the completion of the survey from January 31, 2022, to February 11, 2021.

The SEM survey had 47 special education majors participate with 46 completing surveys. All respondents did so from their own computer on the secure web-based platform. Prior to beginning the survey, each participant needed to verify informed consent by responding to a series of questions. See Appendix C. One participant did not respond positively to all questions on the informed consent and as a result was not able to complete the survey. Of the completed SEM survey one, 40 completed the survey in entirety and 36 indicated they had prior experience with students with disabilities while four indicated no experience. The 40 participants then rated the 14 accumulated influencing factors identified throughout the literature review that influenced their choice of major on a Likert scale from one being no degree of influence to five being significant degree of influence on their choice of special education as a major.

The second survey, the Past USP Participant survey, see Appendix D, was distributed to three different sets of past USP participants that were 18 years or older. The first group of students was sampled from a group of 60 past USP participants accessed

through the USP directly. The USP maintained emails from previous 18-year-old or older participants from the 2019 and 2020 school years in anticipation of supporting the research. The second and third set of participants were accessed through two Unified Sports Coaches. These coaches from local school districts collected emails of past 18-year-old or older participations in anticipation of supporting this research and created a sample size of four participants. The USP Unified Champion School Director and two Unified Sports Coaches distributed the second survey, USP Participant Survey, to past USP participants on January 31, 2022, and the collection was open until February 11, 2022. Participation was voluntary. The coaches sent the prepared email to the past participants. The email encouraged participation in the study with the coaches request for participation and the survey link (See Appendix E). At the end of the collection window, there were 13 responses who chose to complete the survey and did so from their own computers on the secure web-based platform.

Each survey began with informed consent responses. Participants were unable to proceed with the survey until confirming consent through the survey questionnaire, see Appendix C. Due to the low response rate, reminder emails were sent once a week for a total of three times during the two-week data collection period. At the end of the collection window, there were 13 responses, 11 of which were completed surveys. Two participants did not respond positively to the informed consent and as a result, they were unable to proceed with the rest of the survey.

Of the 11 participants, two participated in USP for one year, five participated for two years, two participated for three years, and two participated for four more years (see Table 1). Four of the previous USP participants had prior experience working with people

with disabilities prior to belonging to the USP team while seven had no prior experience working with people with disabilities prior to participating in the USP. Nine of Survey Two respondents were current college students while two were employed at the time of responding. Of the respondents that were in college, five majors would not lead to direct contact with students with disabilities, three majors were in the field of social work, and three would have direct contact with students with disabilities as an early childhood major, occupational therapist, and special education major. Each participant responded to the survey indicating to what degree participating in Unified Sports influenced their choice of major on a Likert scale ranging from one meaning no influence to five indicating significant influence.

**Table 1**

*Unified Sports Participation Years of Experience*

years of participation	participation count (n=11)
1	2
2	5
3	2
4	2

### **Research Plan**

The review of the literature indicated that a person is more likely to choose a major based on knowing it is an option and having prior experience in the area or perceived aptitude (Pascule, 2014). Based on this information, the researcher wanted to identify if high school students are aware the special education is an option as a career, if prior exposure to working with students with disabilities influenced the choice of special education as a major, and if exposure through the USP correlated to participants pursuing a career in special education. Through the surveying of current special education majors,

the researcher was able to discern the key influences that supported the participants' choice of special education. The survey questions required the respondents to rank factors that contribute to choose of a major on a scale of one being no influence to five being significant influence. By surveying past USP participants, the researcher was able to discern if participation in this activity influenced their future career choices and if so, to what degree. The survey required the USP participants to indicate if they had prior experience working with people with disabilities and then rank the significance of influence of participation in the program to their future career choices from one being no impact to five being significant impact.

This quantitative study intended to quantify the correlation between prior experience with students with disabilities and major choices in special education with an extended measure of participation in USP and the choice of a career related to working with students with disabilities. According to Mertler (2019), quantitative data collection techniques include surveys, questionnaires, checklists, and rating scales and are efficient means to collect data from numerous individuals simultaneously. This researcher chose the survey method in the form of attitudinal questions. Attitudinal questions ask the individual participants their opinions or attitudes about a given topic. Most of the questions on the surveys shown on Appendix A and D were closed ended and responses were based on a Likert scale. A Likert scale begins with a statement asking the respondent to choose from a continuum response (Mertler, 2019). Because the information relates to decisions the participant made, opposed to external conditions, the researcher felt a neutral option was not an appropriate option. Instead, the participants could choose a no influence response, indicating there was no influence from that prompt

on major choice or career option. There is controversy when creating a Likert Scale regarding including a neutral option (Mertler, 2019). The researcher did not provide a neutral response because a no influence is a more appropriate response based on the intent of the survey opposed to a neutral response. The researcher used the array of factors surfaced through the literature review to build the continuum of Likert questions. Requiring the participants to choose a degree of influence the factors had on their choice of major and degree of influence the USP had on their choice of major or career was the data used to respond to the research questions.

### **Fiscal Implications**

The special education staffing shortage has significant fiscal implications for the school districts and the whole educational system. The costs associated with substitute coverage, recruitment of new employees, human resources processing/on-boarding, and professional development and supports of new teachers is approximately a \$20,000 investment (Learning Policy Institute, 2017). As part of a statewide initiative to gain baseline data as to the number of special educator vacancies at the start of the school year, the intermediate units collected vacancies at the regional level. There was not 100% participation in the survey, 70 out of the 500 school districts provided the number of vacancies as of November 1, 2021. The number reported was 542. It should be noted, this count was not verified, was preliminary, and is used only to provide an example of potential costs of unfilled special education vacancies as of the 2021-2022 school year (Pennsylvania Intermediate Unit [PAIU], 2021). With the reported number of vacant special education positions (542), that would be a cost of \$10,840, 000 for one year to refill all the vacancies. This does not consider the number of that same staff that may turn



over within a year of hire. It is reported that there would be six out of 10 teachers replaced annually. With the current attrition of teachers, it would be beneficial to reduce costs around recruitment and substitute coverage by increasing the available pool of special educators.

The above cost does not include the additional costs incurred through hiring substitutes and the non-monetary costs of the potential negative impact to the quality of education (Learning Policy Institute, 2017). As discussed in the literature review, if special education professionals are not trained or do not provide appropriate services to students with disabilities, vulnerable students are at risk of not achieving their potential and school districts are at risk of parents seeking remedies for lack of appropriate services through due process. According to a survey completed by American Association of School Administrators in 2016, the average legal fees for a district involved in a due process hearing were \$10,512.50, this does not include the parental legal fees which are often part of the settlement or prevailing parent, averaging \$19,241.38, and the costs of providing the remedies for services averaged \$15,924.14 (Pudelski, 2016). As a result, there are significant fiscal risk of inefficient human resource processes to fill vacancies of special education professionals as well as the compounding costs of the inability to provide adequate services to students with disabilities resulting in due process when there is a shortage of special education professionals.

It is critical to develop strategies to address these shortages (Pudelski, 2016). To do so, there needs to be a shift from deficit to surplus of potential special education candidates in pre-service teacher preparation programs. To support this shift, the research can substantiate some key factors that influenced special education majors to choose their

major to use replicate those proven factors to increase the influence statewide. A surplus of special education educators would reduce the costs associated with recruitment and substitute coverage based on unfilled positions.

### **Research Design, Methods & Data Collection**

This is non-experimental descriptive quantitative explanatory correlational study. A non-experimental study does not require any manipulation of a variable (Merlter, 2019). A descriptive survey is intended to describe the characteristics of a set of subjects in one point of time (Mertler, 2019). An explanatory correlational study is intended to comprehend and describe certain related events, conditions, and behaviors; measure the relationship, correlation, between two or more variables (Mertler, 2019). This study intends to examine the common influencing factors of the subjects' prior experience with students with disabilities and/or participation in the USP and the correlation between major and/or career choices. Because the study compares two groups where both groups were identified by past experiences and compares their choice of major to draw potential causal relationships, this is deemed a causal-comparative study (Mertler, 2019).

Quantitative data was collected for the study through a web-based survey with Likert-question responses. The use of web-based technology for the collection of research data has exploded over the past decade (Merlter, 2019). The method of collecting data was through an anonymous survey to a targeted random sample group. The intention of an anonymous survey was to reduce bias and provide reliable and precise data. Based on the analysis of the data, the researcher collected the information necessary to make recommendations to potentially support addressing the special education staffing shortage.

There are two different sets of data examined to determine what factors or circumstances correlate to choose of special education as a major. The first set of data is the data from the Special Education Major (SEM) survey and the second set of data is from the survey of the past USP participants. The surveys were distributed at the start of the Spring Semester of 2022 with a three-week window for collection. Responses were collected individually per respondent and then analyzed based on patterns of responses. Participants provided their responses through the web-based survey, which collected the responses accordingly. The first email prompt went out the first day of data collection and a reminder email went out to the potential participants of each survey one week prior to the closing of the collection window. Each participant responded to the associated survey, which had five to 10 questions beyond the informed consent. The responses by the participants would provide the data necessary to answer the research questions of what major influence students to choose special education as a major, does prior experience with people with disabilities influence one to choose special education, and does participation in the USP provide the exposure and influence to choose special education as a major. It was imperative to ask the questions of the survey participants to gain their perspective of what factors influenced their decision to major in special education or other career options.

The Special Education Major (SEM) survey had three questions. The first question asked if the participant has prior experience working with people with disabilities. The second question asked them to rank 14 factors which surfaced through the research that influences a person's choice of major from no influence to significant influence on the respondent's choice of major. The third and final question asked if they

had one significant influencing factor to list it in a comment box. See Table 2 for factors influencing choice of major influencing design of the SEM survey.

**Table 2**

*Literature Review Accumulated List of Factors Influencing Choice of Major*

Factors Influencing Choice of Major
The potential for future employment.
I have other family members/close friends that are/were in the field.
A teacher(s) that encouraged me to enter the field.
I experienced receiving special education service.
Career Counseling in High School
Starting Salary after graduation
Interest in the subject matter
Ease of job requirements
Challenge of Job Requirements
Perception of Aptitude in the Field
Perception of Society of Working in the Field.
The Type of work the Major will Enable you to do
Flexibility in Career Path
Prior Experience Working with Children/People with Disabilities.

The Past USP Participant survey had six questions. The first five questions asked demographic questions such as years of experience with USP, current status, employed or in college, current or future majors, and if the participant has prior experience working with students with disabilities other than USP participation. The survey then asked the participant to rank statements related to their participation in USP from a scale of one to five with one meaning no impact and five meaning significant impact on their current or future major/career choice. The survey then asked the respondents to indicate their current or future career choice.

Upon designing the survey, the researcher studied how to design a survey to yield the highest response rate. The research indicated that survey design does play a critical role in influencing a higher response rate. The research indicated that multiple choice and

reduced click responses yield a higher response rate, which is a determining factor the researcher designed the rating option with a one-click response (Muhammed, 2022). The researcher created text boxes as optional responses to gain further insight from specific responders, but not responding to the open-ended questions did not cause the survey to be incomplete. Those open-ended responses did not create conclusive data, but potentially increase description and could be used to emphasize or expand upon conclusions drawn from the other quantitative data.

Multiple data sources were used to respond to the research questions. The first question sought to research the key factors that influenced special education majors to choose their major. The first survey provided the opportunity to gather information to respond to that research question. The second research question sought to determine the degree of influence those factors had on the student's choice of major. There was the option for the special education major to identify one key influence to their choice of major, which served to provide emphasis on chosen factors or to list a factor not provided on the rating list. The third research question sought to determine the degree of an influence participation in the USP had on the past participants choice of career. The survey provided the opportunity for the respondent to list their current or future career choice which would enable the researcher to potentially correlate participation in the USP and a career choice related to working with students with disabilities.

The proposed research plan was approved by the Head of the Division of Humanities, Arts, and Social Sciences at the branch campus on July 28, 2021. Following the design of the research study, the research submitted the IRB application on July 29, 2021. A response was received on August 16, 2021, and there were required revisions

and the plan was resubmitted on August 23, 2021. Final approval was received on September 23, 2021, to conduct the study between September 22, 2021 and September 22, 2022. See Appendix F. When data collection began, one of the participating universities required the researcher to be approved by their university IRB to collect data from their site. The researcher submitted the application to that university on January 26, 2022 and received approval on January 28, 2022. See Appendix G. There was not a requirement to secure IRB approval from the two other higher education institutions.

Once all approvals were secured, the researcher reconnected with the professors, USP Champion Schools director, and coaches to initiate the process of distributing the surveys. An email with a cover statement and survey link was provided to each distributor. The data collection process began January 31, 2022 and concluded February 11, 2022. See complete Research Plan/Data Collection Timeline in Table 3.

**Table 3***Research Plan/Data Collection Timeline*

<b>Date</b>	<b>Action</b>
August 2021-December 2021	<b>Planning Phase</b> <ul style="list-style-type: none"> <li>• Review of the Literature</li> <li>• IRB Approval Process</li> <li>• Survey Development</li> <li>• Confirmation of Dissemination Team</li> </ul>
December 2021-January 2022	<b>Preparation Phase</b> <ul style="list-style-type: none"> <li>• Survey Creation in web-based platform</li> <li>• Communication with Dissemination Team</li> </ul>
January 2022-February 11, 2022	<b>Data Collection Phase</b> <ul style="list-style-type: none"> <li>• All surveys distributed</li> <li>• Weekly review of responses</li> <li>• Weekly reminders of USP past participants</li> <li>• Analysis of initial responses</li> <li>• Collection of all responses</li> </ul>
February 11, 2022-April 30, 2022	<b>Data Analysis</b> <ul style="list-style-type: none"> <li>• Analyze participant rate</li> <li>• Analyze demographic responses</li> <li>• Analyze Likert Scales</li> <li>• Analyze open ended responses</li> <li>• Conversation with Mike Bovino From USP</li> </ul>
May 1, 2022-June 30, 2022	<b>Reporting Phase</b> <ul style="list-style-type: none"> <li>• Synthesis of Information</li> <li>• Conclusions Recommendations</li> </ul>

**Validity**

The researcher took multiple steps to increase the validity of the research.

Validity of research is essential to ensure the quality and impact of the outcome data. It is critical to verify that the intended outcome of the research measures the intent of the study. The first step to ensure validity was to have the surveys administered by a person other than the researcher and having no identifying information on either survey. This removed any possibility that the researcher would be able to identify the respondent or have any subjectivity based on potential knowledge of any of the respondents.

Additionally, the questionnaire that was used was first reviewed by the researcher's Doctoral Capstone Committee in order support content validity to make sure the questions were not leading nor contained bias.

The questions in the survey were created based on the literature review surrounding influencing factors of college major selection. The data from the survey was organized in excel spreadsheets by the web-based platform and used for analysis, therefore unaltered by the researcher. The questions used in both surveys of this research are explicit and respond directly to the research questions. The use of two different sample groups responding to the same concepts supports the validity of the data. There are key differences in the data sets. The targeted group of special education majors, which is the intended outcome of the research, how to produce more special education majors, and the second data set which uses a different descriptive variable for a critical sampling group, USP participant. Gathering data on the same concept, factors influencing the choice of major or future career options, from two distinct data sets supports the triangulation of the facts further supporting the validity of the researcher. With the consideration of research bias, there is a benefit for the researcher to determine key factors leading high school students to choosing special education; however, the data was collected in manner that guaranteed the researcher's biased had no influence on the participants' responses or data analysis.

The choice of the participants was random. For survey one, three college professors providing the email link to their current special education majors in their classes. There was no incentive providing to the sample pool. The response rate was targeted random sample and it would be anticipated that such surveying would yield the



same pattern of results if the survey was replicated. Using both surveys allowed the triangulation of results that would allow the confirmation of the data through analysis. The research data will be preserved, and all data will be stored in a secure setting for five years. It is critical that this information is transferrable to other scenarios. The fact that those sampled in both data sets had multiple other influencing factors not surveyed based on their individual life circumstances supports the ability to generalize the results across settings and scenarios. There was the plan to interview survey participants following the data collection to gain further insight into the research questions; however, upon ongoing analysis of the data, particularly the open-ended responses, the researcher concluded there was no need to gather additional information. Due to the anonymous survey completion, interviewing participants would be challenging and risk the secure data collection process. A final step to ensure validity of the data analysis from study was a consultation with a statistician to confirm, the researcher's interpretation of the data.

### **Summary**

The primary purpose of this quantitative casual-correlational predictive study was gain insight into the driving factors that influenced special education majors to choose their major to replicate the factors to positively impact the special education personnel shortage. The study further drew upon prior research that experiences with students with disabilities is a common trait of master's level students and quite possibly an influencing factor of high school students which might support them on a career path of special education. The study finally sought to see if a correlation existed between participation in the USP, prior experience with students with disabilities, and a career related to working with students with disabilities. Based on the research in the literature review, prior

experience in a field supports future career choices and this fact holds true for working with students with disabilities. This study evidenced that prior experience of working with students with disabilities was one common factor connecting all the special education majors and the USP participants choosing a career related to working with students with disabilities. The data analysis and the results of the study are reviewed in Chapter IV.

## **Chapter IV**

### **Data Analysis and Results**

This chapter will focus on the analysis of the data that was collected from the administration of the Special Education Major (SEM) survey and the Past USP Participant survey. The quantitative data collected in this study accounts for an attitudinal scale on both surveys. The statements on both surveys pertain to the influence of prior experience of working with students with disabilities on choosing a college major of special education and if the experience of participating in USP correlates with students choosing a career related to working with students with disabilities. It is timely to note the requirement to provide FAPE for students with disabilities includes special education and related services. This researched evidenced choice of major in special education, occupational therapy, and social work. Occupational therapy and social work services are two related services required under the IDEA if they are required to provide FAPE (USC, 2004). The results of this study provide key factors that influence students to choose special education or related field as a major.

This chapter will present the data analysis and the process the researcher used to analyze the data. The data presented include triangulation of the data from the special education major survey and the data collected from the unified sports survey. The data shared in the next section of the chapter describes the impact of prior experience with students with disabilities and the choice of special education as a major as well as the role participation in the USP played in the future career choices of the participants.

The data collection process occurred as described in Table 3 with the analysis occurring throughout the process and following the collection window. Throughout the

collection window, it was determined that interviewing the candidates was not necessary for the study. The data collected was sufficient for analysis and conclusion. To ensure validity of the data collection, the surveys were anonymous. The data collected was quantitative through responses to Likert Scale statements and through one or two open ended responses. Participants were asked to rate either the degree of influence named factors had on their choice of a major or the impact participation in the USP had on their future career options. See Table 4 for factors.

### **Data Analysis**

Using the web-based platform SurveyMonkey, two surveys were created and administered to about 90 current special education majors from three different higher education institutions and approximately 60 USP participants. The SEM survey had 40 viable responses and the USP survey had 11 viable responses. Each survey started with a few questions related to demographic information and prior experience and then contained a series of statements the respondents were required to rate the degree of influence the statement had on their choice of major or future career option. There were a few open-ended questions to gain further insight into the type of prior experiences of the respondents to look for patterns and triangulation of the data. The SEM survey asked the respondents if they had prior experience, to list their prior experience and to indicate if any of the factors listed could be singled out as the most influential factor in their choice of major. The USP Participant survey asked the respondents to indicate the years of experience with USP, if they had any other experience with students with disabilities prior to USP, what was their current status (working, in college, or military), what their

current or future career plans were, what their major or future major will be, and if their future plans involved working with children/people with disabilities.

After the data was collected, it was analyzed to look for variation in responses, patterns in responses, and common trends. The data was analyzed by representing the responses as a percentage of responses per statement and the weighted average of each statement. In order to analyze the data from the surveys, calculations were made to create a comparison among the responses. To view the data through a quantitative lens, values were assigned to each rating response. It should be noted that no neutral response was presented on either Likert scale, participants could choose no degree of impact as the least value to significant degree of impact highest degree. The ratings on the Likert scale were give a value as follows: Significant Impact=5, High Impact=4, Impact=3, Some Impact=2, No Impact=1. These values were assigned for statistical analysis after the surveys were complete, as a result, the respondents were unaware of the values on the ratings. The percentage of each scaled response was calculated to compare frequency of similar ratings per statement. A weighted average was calculated to present the data in relationship to the number of responses for each factor. The weighted average is calculated by multiplying each data point of each factor by the corresponding value, summing each of those results, and then dividing the sum by the sum of all samples (Clark-Carter, 2010). The data was also analyzed for frequency of responses, patterns within responses, and any other connections that could be drawn. See Table 4 and Table 5 representing the data from each survey. Following the analysis of both Likert Scale responses on both surveys, the researcher analyzed the open-ended responses by coding the responses and tallying the number of responses per each code.

**Table 4**

*Percentage Rankings of Influencing Factors to Selection of Special Education Major*

Influencing Factor	No Degree of Influence	Some Degree of Influence	Influence	High Degree of Influence	Significant Degree of Influence	Weighted Average
Interest in Subject Matter	2.50%	2.50%	17.50%	37.50%	40.00%	4.1
Prior experience working with children/people with disabilities.	2.50%	15.00%	12.50%	25.00%	45.00%	3.95
The type of work the major will enable you to do.	5.00%	5.00%	20.00%	37.50%	32.50%	3.88
The Potential for Future Employment.	7.50%	15.00%	37.50%	17.50%	22.50%	3.33
Perception of Aptitude in the Field	10.26%	15.38%	33.33%	23.08%	17.95%	3.23
Flexibility of Career Path	17.50%	15.00%	20.00%	22.50%	25.00%	3.23
Perception of Society Working in the Field	17.50%	25.00%	22.50%	22.50%	12.50%	2.88
A teacher(s) encouraged me to enter the field of special education.	25.00%	25.00%	15.00%	15.00%	20.00%	2.8
Challenge of Job Requirements	25.64%	15.38%	35.90%	12.82%	10.26%	2.67
I have other family members/close friends that are/were in the field of special education.	47.50%	15.00%	10.00%	7.50%	20.00%	2.38
Ease of Job Requirements	52.50%	27.50%	15.00%	0.00%	5.00%	1.78
Starting Salary	58.97%	25.64%	10.26%	5.13%	0.00%	1.62
Career Counseling in High School	68.42%	18.42%	7.89%	2.63%	2.63%	1.53
I experienced receiving special education services.	82.50%	5.00%	5.00%	0.00%	7.50%	1.45

**Table 5**

*Percentage Rankings of Influence of Unified Sports Participation on Future Career*

Unified Sports Impact on Future Career	No Impact	Some Impact	Impact	High Impact	Significant Impact	Weighted Average
Unified Sports has positively impacted my plans for a career after high school	9.09%	36.36%	0.00%	36.36%	18.18%	3.18
Without Unified Sports, I would not have known that a career working with people with disabilities was an option.	45.45%	9.09%	27.27%	18.18%	0.00%	2.18
Unified Sports was a significant factor in my decision to pursue a career in special education or related field with people with disabilities.	60.00%	0.00%	10.00%	20.00%	10.00%	2.2
Unified Sports was a significant factor in determining that I did not want to work with people with disabilities as a career in the future.	90.91%	0.00%	0.00%	0.00%	9.09%	1.36

## **Results**

This section will address each research question from multiple data points. The organization and analysis of the surveys allowed the researcher to compare the patterns among respondents and draw conclusions-based data responses. The comparison of the data allowed for conclusions to be drawn based on the quantified responses to statements. The data from all data collection tools are presented in this section as well as a summary of the open-ended responses.

### ***Research Question 1 Results***

The first research question studied the following: What are current special education majors' perspectives of the key factors that attributed to their decision to major in a special education?

There were 40 completed survey responses to the Special Education Major (SEM) survey I. Of the 40 responses, 36 reported prior experience with people with disabilities and four reported no prior experience with people with disabilities. The highest ranked three factors include interest in the subject matter, prior experience with children/people with disabilities, and the type of work the major will enable you to do. The factor that received the highest total count of responses of 31 when combining high degree and significant degree as well as the highest percentage of responses was interest in the subject matter with a total of 77.5% of the responses and an average weight value of 4.1%.

The factor that received the lowest total count of responses of three and the lowest percentage of responses was I experienced receiving special education services with 7.5% of the combined responses from high degree and significant degree of impact and the

lowest weighted average of 1.43%. The next lowest ranked factors were career counseling in high school and starting salary. No respondents felt the starting salary had a significant factor on their decision to major in special education and only one respondent indicated career counseling in high school had a significant impact. It should be noted that starting salary had one fewer respondent and career counseling had two fewer respondents.

### ***Research Question 2 Results***

The second research question studied the following: To what degree do college students majoring in special education report previous experiences with people with disabilities as the greatest factor in their choice of major?

#### **Special Education Majors Survey Results.**

The factor that received the second highest percentage of having a significant influence was prior experience with children/people with disabilities with 45% of the respondents rating it as significant impact and 25% of the respondents rating it as high degree of influence and 3.95% average weighted value. This was only second to interest in the subject matter.

As previously stated, of the 40 SEM survey respondents, only four reported no prior experience with children or people with disabilities. Those four respondents indicated interests in the subject matter as having high or significant influence on their decision as well as flexibility of the career. All four respondents without prior experience with students with disabilities indicated a teacher had some degree of influence in their decision to pursue special education as a major.



There was the option for the SEM survey respondents to provide a description of their prior experience with children or people with disabilities. Of the 36 respondents with experience, 13 provided a response to the open-ended question asking to list the type of prior experience. Many of the respondents had multiple different types of experiences. A result to highlight is of the type of prior experience, seven of the 13 responding to the open-ended listed Special Olympics or Special Olympics “Like” participation as the experience equating to 50% of that subset. As a result, at least 7 of the 36 SEM survey respondents listed Special Olympics or Special Olympics “Like” participation. When asked to identify one factor listed or not listed that impacted the decision to choose special education as a major seven of the 36 responding to the open-ended questions listed prior experience had the greatest influence on their choice of special education as a major.

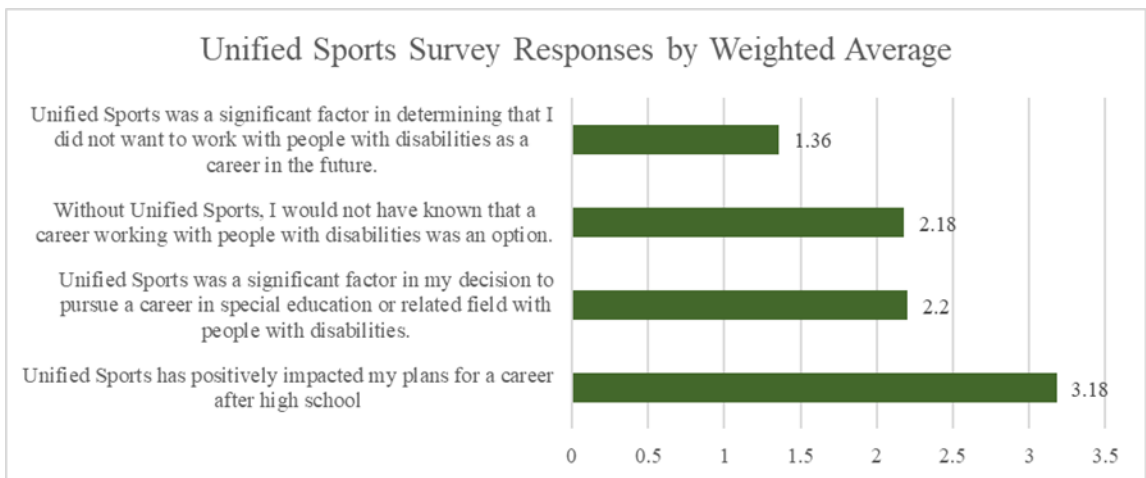
### **Past USP Participant Survey Results**

The Past USP Participant survey also revealed data responding to research question two. Seven respondents had no prior experience with people with disabilities before participation in the USP. The other respondents had varying years of experience with the USP. Two respondents participated for one year, five respondents participated for two years, two respondents participated for three years, and two respondents participated for four years. Nine out of the 11 respondents were enrolled in college or intend to enroll in college. Of the nine college students that responded to the Past USP Participant survey, five indicated that the experience of participating in USP had a high impact or significant impact on their choice of career option for the future. That statement received the highest combined percentage of 54.5% and the highest weighted average of

3.18%. See Figure 1. Of those nine respondents, five were majoring or intending to major in special education or related field. Those majors were special education, occupational therapy, early childhood education, and social work. Of those five respondents, two had prior experience with people with disabilities before USP and the other three only had experience with children or people with disabilities was through the USP. Of those five respondents, all indicated participation in USP had a high or significant impact on their future career choice.

**Figure 1.**

*Respondent Rating of Impact of Unified Sports*



***Research Question 3 Results***

The third research question studied the following: Do previous Unified Sports participants choose a major related to special education or other related services at a higher rate than other majors?

Because the Past USP Participant survey had only 11 responses. It would be difficult to draw any substantial conclusions from a small sample. Therefore, the researcher recommends the results from the Past USP Participant Survey should be interpreted with caution and provides the opportunity for future more expansive research.

However, there are trends and patterns that yield potential evidence for this research question. Of the 11 respondents, seven had no prior experience of working with children/people with disabilities prior to the USP. Of those seven, three are choosing a career related to special education; one is occupational therapy and two of which are social work. That data point represents 43% of those without prior experience choosing a career related to special education following at least one year of participation in the USP. Of those three respondents without prior experience that choose a major related to special education, two rated the USP participation as having high impact and one rated it as having a significant impact on that future career choice with an average rating of 4.33%. Nine out of the 11 Past USP Participant survey respondents are currently enrolled in college and an additional respondent reported to have the desire to attend college in the future. Of the nine respondents of the Past USP Participant survey enrolled in college, four are majoring in special educator or a related field and each rated USP as having a high or significant positive impact on their plans for a career after high school with an average rating of 4.5%. The one respondent with the goal of college indicated that his/her goal is to major in the related field of early childhood education in the future. As a result, of the 11 responses from the Past USP Participant survey, five intend to enter the field of special education or a related field that would work with students with disabilities and rated the USP as having a high rate or significance positive impact on their future career plans after high school with an average rating of 4.4%.

### **Triangulation**

For data to be valid, it must be consistent across multiple measures. This process is term triangulation. Triangulation is the process of using multiple data methods,

collection strategies to verify the consistency of the facts (Mertler, 2019). To validate this research, this study used multiple data sets and collection methods to ensure the facts would surface and be substantiated through a variety analysis. The SEM survey provided the opportunity for the respondents to list their prior experience with children/people with disabilities if they had prior experience. Some respondents had multiple experiences which explains why there are more experiences in the table than respondents (See Table 6). A data point that surfaced from the SEM survey was that seven respondents had experience with the Special Olympics or Special Olympics “like” events. To triangulate the data, the research combined the data from both surveys to compare prior participation of all students attending or planning to attend college to major in special education or related career which would be 41 total college students, 36 from the SEM survey and 5 from the Past USP Participant survey. Of that subset of both surveys, 12 out of the 41 college students or future college student had prior experience with Unified Sports, Special Olympics, or Special Olympic “like” programs, chose or will choose a major related to working with students with disabilities. This equates to 29% of the Special Education Majors or related field majors having exposure to students with disabilities through the USP, Special Olympics, or Special Olympic “like” program.

**Table 6**

*Total Responses of Types of Previous Experience Listed in Open Ended Survey Question*

Type of Prior Experience with Students with Disabilities	Responses
Family Member with Disabilities	2
Special Olympics or Similar Experience	7
Class Room Support	12
Organized Social Group	6
College Exposure	13
Indirect Exposure through Employment	4
Employment or Volunteer at Private Service Provider	6

*Note.* Some respondents had multiple types of experiences.

## **Discussion**

The researcher will discuss the data results in relationship to each research question. What are current special education majors' perspectives of the key factors that attributed to their decision to major in a special education? Based on the analysis of the data, interest in the subject matter and prior experience with people with disabilities received the two highest scores in the respondent rankings of the factors impacting the special education major decisions to choose special education as a major. The researcher believes it would be difficult to have high interest in a subject matter without some form of experience with the subject matter. There was not a significant difference between the top two rankings. A question could be asked of the respondents that answered interest in the subject matter, which came first the interest in the subject matter or the prior experience or did the subject have experience which increased the interest in the subject matter? For the essence of this research question, it is unnecessary to separate the two factors and just conclude that the participants in this research study ranked interest in the subject matter and prior experience with people with disabilities as the top key factors

that attributed to their decision to major in special education. However, this is a potential area for further research.

Other discussion points the researcher wants to evidence through this discussion for purposes of future action and/or research is that the three lowest ranked factors influencing major choice were starting salary, career counseling, and experience receiving special education services. The researcher wants to highlight these facts due to the sometimes misunderstanding that the sole factor to increase the number of people entering the field of special education is to increase the teacher pay. Although that may be a factor and further research might reveal it greater influences a factor impacting retention, in this study, it was not a significant factor influencing the choice of major. A further concern of the researcher is the lack of influence of career counseling had on the respondent's choice of special education as a major. Career counseling is a main component of high school guidance counselors as part of the academic standards for career education and work. A comprehensive guidance plan is required as part of Pa. School Code under Chapter 339 titled Guidance (Thompson, 2011). Additionally, a comprehensive program of student services is required under Chapter 12 titled- Services to Students. The academic standards for career education and work address the importance of career planning for all students related to labor market projections and workforce needs. Pennsylvania's school counselors must be front and center in supporting students to college and career success (Pennsylvania Department of Education[PDE], 2015). This highlights further questions and need for future research. Does the career counseling include special education as a potential career option to guide students? Finally, the fact that experience receiving special education services received

the lowest ranked score evidences the need for further research in the area of how pervasive this fact is and why. Research reveals that teachers are role models and if students see role models that represent themselves, it evidences a future path for themselves. Having more teachers that evidence as a person with a disability could be impactful for future students with disabilities to view education as a potential career path. These are only concepts or thoughts the researcher would recommend further research and exploration, but worth noting as data that surfaced in this study which could provide positive impact to the field in the future.

The second research question studied the following: To what degree do college students majoring in special education report previous experiences with people with disabilities as the greatest factor in their choice of major? The analysis of the data revealed the factor of prior experience with people with disabilities ranked second highest in the list of facts of influencing factors with only .15% difference in weighted average from the top factor of interest in the subject matter. Further reinforcing the concept that prior experience is an influencing factor in future major choice is the fact that of the five USP participants that chose or will choose special education or related field as a major, all indicated that prior experience had high or significant influence on their career choice. And to emphasize the fact that three of those five had no prior experience working with people with disabilities prior to the USP participation. The fact that two separate surveys evidence prior experiences with people with disabilities with such high ratings substantiate prior experiences as a precursor to special education career choice.

The third research question studied the following: Do previous Unified Sports participants choose a major related to special education or other related services at a

higher rate than other majors? Of the nine past unified sports participants that are currently enrolled in college, four are majoring in special education or a related field. One of the respondents not currently in college intends to enroll in early childhood education. Combing those facts still equate to five out of ten respondents enrolled or intending to enroll in college choosing special education or a related field as a major. Even though there was a low response rate, this does represent 50%, which statistically is significant. As a result, this research cannot conclude past Unified Sports Participants choose special education or related field at a higher rate than other majors, but further research is recommended with a higher response rate.

### **Summary**

Chapter IV reviewed the results of the survey responses of this study. The intent of the study was to identify influencing factors to choosing special education as a major in order to recreate those conditions to ensure high school students are aware of the potential career path. The collection of data was used to inform the three research questions of this study. Multiple data sets were used to be informed of the key factors influencing that correlated with the choice of special education as a major. With the shortage of special education professionals, it would be beneficial to discover if there are influencing conditions that could be replicated to encourage more high school students to enter the field of special education.

The data was organized in tables displaying the participant responses from the highest ranked response to lowest ranked response from both surveys. Prior experience working with students with disabilities surfaced as a significant factor in the decision to major in special education. It was the second highest rating under the factor of interest in



the subject matter. The influence of prior experience working with students with disabilities was further supported with data from the Past USP Participant survey. All five of the Past USP participants ranked prior experience high or significant influence on their choice of special education or related field as a major. More significant to the researcher is that of the five USP that chose special education or related field as a major, more than half of them, three, had no prior experience. This also evidences that prior experience of working with students with disabilities may influence students to enter the field of special education.

This study collected targeted data specific to the research questions shaped through literature review. There was a strong response rate of Survey I; however, further research needs to be conducted to substantiate the influence of USP due to the small sample size. The researcher would hypothesize there would be similar trends. The data from this research will be used to provide recommendations to educating entities to increase the opportunities for high school students to participate with students with disabilities to expose them to future career areas of interest. Chapter 5 will further discuss recommendations and implications of the study.

## Chapter V

### Conclusions and Recommendations

The shortage of special educational professionals is growing into a crisis circumstance national and within Pennsylvania making it very challenging to provide the specialized supports and services required for students eligible under the Individuals with Disabilities Education Act (Office of Special Education Programs, 2020a). This research study was designed to determine key factors that influence students to choose special education as a major to increase more high students to enter the field of special education. This chapter will provide an overview of the study results in relation to the research questions and data collected. There will be a discussion of the limitations of the study, the future implications for the recruitment of special education majors, and the recommendations for further research. The results of this study are needed to provide insight to create a path to increase more special education majors and to influence future special educational professional recruitment initiatives. Two web-based surveys were used to gather data from two data sets, current special education majors and past Unified Sports Program (USP) participants, to answer the following research questions:

1. What are current special education majors' perspectives of the key factors that attributed to their decision to major in a special education?
2. To what degree do college students majoring in special education report previous experiences with people with disabilities as the greatest factor in their choice of major?
3. Do previous Unified Sports participants choose a major related to special education or other related services at a higher rate than other majors?

This chapter will draw conclusions from the research and demonstrate how the data collected from the research is used to substantiate the conclusions. The potential application of the results will be revealed and how the data can be used to influence state initiatives to attract more people to enter the field of special education. The fiscal implications related to the study and recommendations will also be discussed as well as limitations of the research and additional research needs that surfaced as a result of this study.

The intent of this research was to determine what are key factors that led special education majors to choose that career path and to examine a hypothesized factor that prior experience participating in USP may cause more past participants to choose special education or related field as a major than other majors. There has been a gradual decline of high school students entering the field of special education over the past ten years and the COVID-19 Pandemic has caused additional special educators to leave field (Monnin et al., 2022). Based on the requirement of highly skilled and certified professionals to prepare students with disabilities for post-secondary outcomes, actions need to be taken to support the growth of the field. To ensure the efforts are directed toward the most effective path for progress, increase of high school students entering the field of special education, the research was designed to identify potential recommendations on what conditions should be developed to attract more professionals to the field.

The review of the literature revealed key factors that influenced people to choose the college major or career choice. These factors are identified on Table 4. Over 60 current special education majors were asked to rate these factors on a survey from one being no influence to five as having a significant influence on the choice of special

education as a major. Forty out of the 60 participants completed the survey creating a 67% return rate. Of the 14 key factors listed on Table 4, the top two influencing factors identified by the current special education majors were interest in the subject matter and prior experience in the field. This data can be used to confirm that providing opportunities for high school students to participate with students with disabilities can influence those students to choose special education as a major or related field.

High school students across the nation are gaining prior experience with people with disabilities by participating in the USP. The USP has expanded significantly over the past year. As a result, data was collected from past USP participants to determine how the participation may have influenced them to choose a career related to field of special education. From the 11 respondents to the USP survey, ten went on to or intend to go on to post-secondary education. Five of those ten respondents indicated that participation in USP had a high or significant influence on their future career choice, and five of the ten choose a career related to the field of special education. Both of those data sets reveal 50% of the respondents were influenced by participation in the USP. These preliminary results are promising; however, as previously mentioned, there was a very small response rate for this survey so results must be interpreted with caution and there is a need for more in-depth research in this area before being conclusive.

### **Conclusions**

The purpose of this research was to identify the factors that most influenced current special education majors to choose special education as a major and the degree that prior experience with students with disabilities may influence a person to choose a career related to special education. The historical staffing shortage has been exacerbated

by the pandemic so there is dire need to develop strategies to address the crisis. By identifying key factors leading people to choose special education or a related field as a career, conditions can be replicated to potentially increase more people to choose this career path. One top influencing factor of a student choosing a major is prior experience (Zhang et al., 2013). There are multiple ways people can be exposed to potential career options, particularly in high school prior to while students are contemplating potential future career path. Identifying the high impact experiences can support statewide initiatives at the high school level to lead more high school students toward the special education career path. The USP was one identified opportunity for pre-exposure to working with people with disabilities prior to high students choosing potential future majors.

This research consisted of surveying current special education majors to determine what were the key factors leading to their decision of a major and was guided by the following question: What are current special education majors' perspectives of the key factors that attributed to their decision to major in a special education? The data collected from the survey of 40 current special education majors rated the degree of influence 14 identified factors had on their choice of major. Based on the cumulative results of the survey, interest in the subject matter and prior experience with people with disabilities were the most influencing factors to the person choosing special education as a major with 34 out of the 40 respondents indicating one of those factors having significant influence.

The second research question expands the depth of degree of influence of prior experience by asking to what degree do college students majoring in special education

report previous experience with people with disabilities as the greatest factor in their choice? The results described above evidence that prior experience with students with disabilities may have a high or significant influence a student choose a field related to special education. The responses evidenced 70% of the subjects rated prior experience as having a high or significant impact on their choice of major. Additional evidence of prior experience influencing students to choose a field related to special education surfaced through analysis of the Past USP Participant survey. Of the nine subjects enrolled or intending to enroll in college, five chose special education or a field related to special education as their major. This further substantiates that prior experience with students with disabilities can influence people to choose a career path related to special education.

The study examined a specific opportunity for high school students to have experience with people with disabilities by surveying past USP participants. The intent was to measure the influence of the participation in the USP in guiding high school students to choose special education or a related field as a major or future career option. The specific research question was Do previous USP participants choose a major related to special education or other related services at a higher rate than other majors? The survey asked participants to rank degree of influence USP participation had on their future career choices. As previously mentioned, this survey yielded a small sample size of 11 and results should be analyzed with caution. One piece of data that revealed some promising results was the fact that of the seven participants with zero prior experience with students with disabilities, three are majoring in fields related to special education, occupational therapy and social work. One of those subjects indicated without USP, they would not have known working with people with disabilities was an option, and two

subjects indicated the participation had an influence on their career choice. Although much more expansive research should be conducted in the influence of USP and its impact on choice of major, this data hints that it may influence more high school students to enter the field of special education or in this case, a related field. Another data point from this survey is that only one of the respondents indicated that participation in unified sports influenced them not to choose a field related to special education. As a result, it appears there is benefit to students participating in unified sports due to the potential of students being exposed to working with students with disabilities and therefore recognizing it as a potential career option for them to contemplate while in high school. Due to the low risk of it deterring high school students from the field, it has preliminary evidenced positive influence of 3/7 or 43% of the students with no prior experience choosing a career related to special education due to the influence of participating in USP.

The data and the research of this study provide substantial confirmation that exposure to the field of special education prior to choice of major, can influence the high school students' decision-making process and guide more students to major in special education or a related field. This information is critical when designing strategies and interventions to mitigate the current special education personnel shortage. Efforts can occur at the state, regional, or local level by designing initiatives to exposure high school students to the field of special education to attract more candidates to the field of special education building capacity at the regional or statewide. With the statewide shortage of special education professionals, this information is valuable to support the design of a statewide initiative to develop programs to expose as many high school students to the

field of special education, minimally for them to recognize it as an option and to determine if it is an area of potential interest. Without that minimal effort, many high school students may choose more well know career options without even contemplating if special education or related careers are of interest to them. Secondly, the data reveals that prior exposure and interest in the subject matter are the highest rated factors influencing students to choose special education or a related field as a major. If the state were to develop programs or expand existing programs that expose more high schools students to the field, it may aid in reducing the special educational personnel shortage. For example, by expanding the number of USP across more high schools in Pennsylvania, more high school students will have exposure to working with people with disabilities. In the most basic example hinted at through this data, three out of the seven high school students choose a related field as a career path after participation in unified sports. If of the 225 current Unified Sports Schools in Pennsylvania, three students become exposed to the field of special education and choose it as a career path, there could potentially be an increase of 675 new special educators. Of course, this concept is purely hypothetical, but there is promise in the concept and credence to creating such initiatives across the state.

With the increasing special education staffing shortage, there is tremendous focus from the federal and state level for systemic approach. There are multiple statewide initiatives across the country attempting to address the shortage. For example, one proven initiative is the Grow Your Own initiative spotlighted in Clarksville, TN. This initiative has the mechanism for teacher residences where preserve teachers are hired at salary and education are funded by the school district with an agreement of dedicated years of return



employment in the district. This is an innovative way to ensure a path from high school or second career to future employed educators (Tennessee Department of Education [TDE], 2022). The information can be used by local educational entities to design interventions to expose high school students to the field of special education early during their high school experience to potentially influence their future teacher work force. This is one effective means of reducing special education staffing shortages at the local level but comes with a hefty price tag of approximately \$100,000 per school district per year only producing a handful of educators for that specific school district (TDE, 2022).

Building prior exposure programs for high school students where they are exposed to the field of special education before or during their decision-making years, as the data reflects, can expose students to the career option path at a much lower cost. As a part of information gathering for cost analysis of this research, the researcher spoke to Mike Bovina, Pennsylvania Director of USP. He informed the researcher that USP cost districts about \$7000.00 per year and opens the opportunity for approximately 15 athletes with disabilities and 15 athletes without disabilities per team. This has the potential to expose more students to the field of special education at a much-reduced rate when comparing the Grow Your Own expense. The state could offer grants to school districts to offset the cost of the startup of USP and systemically increase the exposure of high school students to the field of special education. It would also expand the reach and build capacity across the state opposed to only impacting the local districts that choose to develop grown you own programs. Finally, as evidenced through the literature review, there is significant research regarding the school culture enhancements the USP develop. Eighty-one percent of the students involved in the USP indicated that the components are changing their

schools for the better (Special Olympics, 2021b.) As a result, the combination of enhancing and developing positive school cultures and environments while increasing the number of students that enter the field of education by offering USP across the state may have significant impact in the field of special education by enhancing acceptance and inclusion at the school level and increasing the number of qualified professionals at the field level.

The research was concluded that prior experience is a key factor to influence high school students to choose special education as a major. It evidenced that 90% of the current special education majors had prior experience working with students with disabilities and 28% of those subjects from both data sets that enrolled in special education or related fields had exposure to students with disabilities through Special Olympics or Special Olympics like activities. It should be noted that USP is not the only program or means to expose high school students to the field of special education. There are an array of activities or programs that can be developed to set conditions for exposure such as tutoring, lunch buddies, peer tutors, teacher assistant, or other inclusive activities. Unified Sports was the focus of this study.

Due to the national shortage of special education professionals, there are federal grants that states can apply to for fiscal support to narrow the shortages. The Individuals with Disabilities Education Act funding also has a discretionary set side amount that allows states use toward state priorities. Pennsylvania Department of Education Bureau of Special Education may review this research and use it to apply for the Special Education Personnel Development Grant as well as justify the use of some of the IDEA discretionary funds to provide grants to school districts to add USP or other activities that

would expose high school students to the experience of working with students with disabilities. The grants would have set requirements which would provide the fiscal means to expand opportunities at the high school student level for exposure to students with disabilities through any activity that meets the grant requirements and expands the exposure conditions. It can be anticipated that with a five-year dedication of the state by providing fiscal support for exposure activities, more high school students will be influenced to choose special education or related field as a major and potentially gradually reduce the shortage of special education professionals.

### **Limitations**

One limitation of this study was the sample size of the USP Participant survey. Sending the survey link via email to past participants created unanticipated challenges. The surveys were disseminated via email by the director of the Pennsylvania USP who secured emails from the past participants at the conclusion of the 2020 season. The survey was emailed to 60 participants, but the return rate was only about 22% with 13 respondents. Only 11 participants completed surveys that were able to be used in the data analysis. The director sent the survey three different times spaced a week apart, but the response rate remained the same. Other USP participants were solicited from previous coaches as well without a return. Because the USP survey was distributed to participants by the solicitor who had no personal contact with them and there was a six-month period between the collection of the email and the solicitation for participation, it impacted the return rate. There was not the ability to encourage completion and to verify continued accuracy of email address. There is also the concern that survey may have gone to the subject's trash or spam filter, therefore, limiting respondents. This is unlike the SEM

survey which was distributed to current special education majors via email from a current special education professor. There was no incentive attached to the completion, but there was encouragement from the professor. The small sample size of the Past USP Participant survey limits the validity and reliability of the analysis, although the data analysis does hint at promising impact. Another related limitation of the study is the phrasing of the research question: Do previous USP participants choose a major related to special education or other related services at a higher rate than other majors? It may be unnecessary to measure the comparison between choice of special education major or other majors and a more important comparison to examine longitudinally the increase of special education majors and related fields and the number of those participants that report USP as an influencing factor.

Another limitation of this study was researching a dynamic situation. During the design of the research, there was the evidenced staffing shortage in the field of special education, however, over the time period of the design of the research, IRB approval, and data gathering, the pandemic continued to impact the data as the shortage in special education personnel continued to grow. Simultaneously, the USP was actively expanding across Pennsylvania. As a result, the data within the literature review needed to be revised to reflect the accuracy of information to make accurate recommendations from the research and application of the research effectiveness may be impacted by the continuing shifting situation.

### **Recommendations for Future Research**

The intent of this research was to identify key factors that led special education majors to choose special education as a major and to determine if involvement in USP

influenced high school students to choose special education at a higher rate than other majors. As mentioned, there is a need to expand the research of the impact of the USP participation and the choice of special education or related field as a career. There are some promising data points surfacing through this research as well as continued anecdotal evidence through reports to coaches by participants regarding the impact of their involvement in the program, but due to the small sample size, further research will need completed to substantiate the hypothesis that participation in unified sports will influence more high school students to choose special education as a major.

Other recommended potential research revolves around responses to the factors influencing choice of major. It was interesting that prior experience receiving special education services, career counseling, and starting salary were the lowest rated factors in this study. There is a growing movement to have educators be truly representative of the students in which they teach to serve as role models and build connections. Research around how to support more people with disabilities to enter the educator work force or why more people with disabilities do not enter the educator work force would be beneficial research. Research around the impact of career counseling and high school entering the educator workforce would be beneficial research. There is a strong emphasis on career counseling as part of Act 349, therefore, the fact that of the special education majors rating influencing factors, and career counseling ranking so low, it raises the questions why is it so low, why are school counselors not supporting high school students to enter the special education work force, or if they are, how are they doing it, because it appears to be ineffective. Finally, frequently it is assumed that people are not entering or remaining in the special educator work force due to the low salary, however, this research

did not substantiate that theory. More research around the impact of starting salary and career salary path of special educators would be beneficial to influence initiatives around retention of special educators.

### **Summary**

Chapter V has presented a conclusion to the research of the factors influencing students to choose special education as a major, the impact of prior experience of working with students with disabilities and the choice of special education and how much of an impact participation in the USP has on the choice of special education as a major. The current special education staffing shortage is creating a crisis in the ability of the field to provide the high quality supports and services to students with disabilities as required under the Individuals with Disabilities Education Act. The shortage of professionals is over burdening the current special education professionals and creating a deterrent to remaining in the field, hence causing more special education professionals to leave the field. Concurrently with the decrease of high school students entering the field of special education, it is causing higher education institutions to close their special education teacher preparation programs. All mentioned circumstances negatively impact the ability to have highly qualified special education professionals to support and educate students with disabilities in school.

There is dire need to change the current trajectory of the increasing special education professional shortage. The research collected data to help influence future initiatives to reverse the negative trend of high school students entering the field of special education or related field and provide insight into what factors would influence more high school students to enter the field. The analysis of the data provided conclusive

evidence to the first two research questions, but more research is required to answer the third research question. This was a quantitative research study. Data was collected through two anonymous surveys through ratings of prompting statements on a Likert scale and answering of a few open-ended questions. The evidencing of the key factors of interest in the subject matter and prior experience of working with students with disabilities as the highest rated factors influencing the current special education majors in the study to choose special education or a related field as a major, is critical information to support the development of future initiatives. These initiatives can create conditions where more high school students can gain exposure to working with students with disabilities to support them to determine if it is an area of interest and to provide the prior experience to potentially influence their future career choices. This information is valuable to support decisions as to what statewide initiatives will support more high school students to enter the field of special education in the most cost-effective manner having the greatest opportunity for capacity of resources across the state. The research revealed that prior exposure to working with students with disabilities was a key factor in current special education majors' decision to choose their major. Capitalizing on this research has the potential to significantly impact the opportunity for students with disabilities if more high school students gain exposure during the career decision making period, enter the field of special education, and become special educators in the next five years. This will reduce the shortage, support the current work force, and provide high qualified professionals to the population requiring their expertise.

### References

- American Speech and Language Association. (2021, August 9). *About the shortage*.  
NCPSSERS. <https://specialedshortages.org/resources/>
- American University. (2020, May 19). *The role of special education teachers in promoting inclusive classroom*. <https://soeonline.american.edu/blog/promoting-an-inclusive-special-education-classroom>
- Aragon, S. (2016). Teacher shortages: What we know. *Education Commission of the United States*. <https://www.ecs.org/wp-content/uploads/Teacher-Shortages-What-We-Know.pdf>
- Bateman, B. D. (2017). *Individualized education programs for children with disabilities*. Routledge. <https://doi.org/10.4324/9781315517698>
- Beggs, J., Bantham, J. H., & Taylor, S. (2008). Distinguishing the factors influencing college students' choices of major. *College Student Journal*, 42(2), 381-394. <https://eric.ed.gov/?id=EJ816903>
- Boe, E. E. (2006). Long-term trends in the national demand, supply, and shortage of special education teachers. *The Journal of Special Education*, 40(3), 138-150. <https://dx.doi.org/10.1177/00224669060400030201>
- Brown v. Board of Education, 347 U.S. 483 (1954).  
<https://supreme.justia.com/cases/federal/us/347/483/>
- Carver-Thomas, D., & Darling-Hammond, L. (2017). *Teacher turnover: Why it matters and what we can do about it*. Learning Policy Institute.  
<https://www.learningpolicyinstitute.org/product/teacher-turnover-report>



- Chapin, A. (2021, April 19). *Testimony of the Pennsylvania State Education Association. Public hearing regarding education reform presented to the senate education committee.* Pennsylvania State Education Association.  
<https://www.psea.org/globalassets/issues--action/action-center/testimony/senate-ed--psea--aaron-chapin-4.19.21.pdf>
- Clark-Carter, D. (2010). *International encyclopedia of education* (3rd ed.), pp 264-266.
- Cross, F. (2017). *Teacher shortage areas nationwide listing 1990-1991 through 2017-2018.* US Department of Education. <https://eric.ed.gov/?id=ED612088>
- Demonte, J., Holdheide, L., & Sindelar, P. (2016). *Teacher shortages: Meeting the demand without sacrificing quality preparation and support.* American Institutes for Research & University of Florida. CEEDAR Center.  
<https://cedar.education.ufl.edu/wp-content/uploads/2016/10/Teacher-Shortages-Policy-and-Practice-Portrait.pdf>
- Desutter, K. L., & Lemire, S. D. (2017). Exploring the special education versus regular education decisions of future teachers in the rural Midwest. *Rural Special Education Quarterly*, 35(4), 3-9. <https://doi.org/10.1177/875687051603500402>
- Edmonds, J. (2012). *Factors influencing choice of college major: What really makes a difference?* [Master's thesis, Rowan University]. Rowan University Rowan Digital Works Theses and Dissertations.  
<https://rdw.rowan.edu/cgi/viewcontent.cgi?article=1146&context=etd>
- Ellis, J. (1993). Volunteerism as an enhancement to career development. *Journal of Employment Counseling*, 30(3), 127-132. <https://doi.org/10.1002/j.2161-1920.1993.tb00170.x>

Ferguson, D. L. (1998). Changing tactics: Embedding inclusion reforms within general education restructuring efforts. *International Journal of Educational Research*, 29(2), 143-159. [https://doi.org/10.1016/s0883-0355\(98\)00020-2](https://doi.org/10.1016/s0883-0355(98)00020-2)

Fire, C. (2020, October 16). *Grow your own teacher programs: A win for all*. Educator FI. <https://educatorfi.com/grow-your-own-teacher/>

Fizer, D. (2013). *Factors affecting career choices of college students enrolled in agriculture* [Master's thesis, University of Tennessee]. The University of Tennessee.  
[https://www.utm.edu/departments/msanr/\\_pdfs/fizer\\_research\\_project\\_final.pdf](https://www.utm.edu/departments/msanr/_pdfs/fizer_research_project_final.pdf)

Fuller, E., & Pendola, A. (2020). *K-12 teacher supply, demand, and shortages in Pennsylvania*. Penn State University.  
<https://www.rural.pa.gov/getfile.cfm?file=Resources/PDFs/research-report/PA-Teacher-Supply-Demand-Shortages-Exec-Sum-2020.pdf&view=true>

Hardman, M. & Siperstein, G. (2001). *National evaluation of the Special Olympics Unified Sports program evaluation team principal investigators*. University of Mass. Boston and University of Utah.  
<https://media.specialolympics.org/soi/files/resources/UnifiedSports/National-EvaluationOf-SOUnifiedSportsProgram.pdf>

Hehir, T., Pascucci, C., & Pascucci, S. (2016). A summary of the evidence on inclusive education. *Abt Associates*. (ED596134). ERIC.  
<https://files.eric.ed.gov/fulltext/ED596134.pdf>

- Hilliard, A. G. (1992). The pitfalls and promises of special education practice. *Exceptional Children*, 59(2), 168-172.  
<https://doi.org/10.1177/001440299205900210>
- Kamman, M., Sindelar, P., Hays, L., & Colpo, A. (2020). *Short-term strategies for dealing with shortages of special education teachers*. CEEDAR Education.  
<https://ceedar.education.ufl.edu/wp-content/uploads/2019/12/Short-Term-Strategies-for-Dealing-With-Shortages-of-Special-Education-Teachers.pdf>
- Kaplan, I., & Lewis, I. (2013). *Promoting inclusive teacher education methodology*. Advocacy guide. UNESCO.  
<https://en.unesco.org/inclusivepolicylab/sites/default/files/learning/document/2017/1/221037e.pdf>
- Kazi, A. & Akhlaq, A. (2017). Factors affecting students' career choice. *Journal of Research and Reflections in Education*, 2(2), 187-196.
- Kropp, J. & Wolfe, B. (2018). College students' perceptions of effects of volunteering with adults with developmental disabilities. *Journal of Higher Education Outreach and Engagement*, 22(30) 93-118.
- Learning Policy Institute (2017). *What's the cost of teacher turnover?*  
<https://learningpolicyinstitute.org/product/the-cost-of-teacher-turnover>
- Martin, E., Reed, M., & Donna, T. (1996). The legislative and litigation history of special education. *The Future of Children: Special Education for Students with Disabilities*. <https://doi.org/10.2307/1602492>
- Mertler, C. (2019). *Introduction to educational research*. Sage Publications.

Monnin, K., Day, J., Strimel, M., & Dye, K. (2022). *The special education teacher shortage: A policy analysis*. Council for Exceptional Children.

<https://exceptionalchildren.org/blog/why-now-perfect-time-solve-special-education-teacher-shortage>

Muhammed, A. (2022). *Multiple choice questions: everything you need to know*.

<https://surveysparrow.com/blog/multiple-choice-questions/>

Murtagh, N., Lopes, P. N., & Lyons, E. (2011). Decision making in voluntary career change: An other-than-rational perspective. *The Career Development Quarterly*, 59, 249-263. [https://doi.org/10.1002/j.2161-0045.2011.tb00067.x?saml\\_referrer](https://doi.org/10.1002/j.2161-0045.2011.tb00067.x?saml_referrer)

Office for Dispute Resolution. (2019). *Understanding special education due process hearings: A guide for parents*. <https://odr-pa.org/wp-content/uploads/DPH-Parent-Guide-English.pdf>

Office for Dispute Resolution. (2021). *Due process*. <https://odr-pa.org/due-process/>

Office of Special Education Programs. (2020a, November 24). *About idea*. Individuals with Disabilities Education Act. <https://sites.ed.gov/idea/about-idea/>

Office of Special Education Programs. (2020b, December 4). *45th anniversary of the Individuals with Disabilities Education Act*. Individuals with Disabilities Education Act. <https://sites.ed.gov/idea/idea-45-years-later>

Office of Special Education Programs. (2020c). *Attract, prepare, retain: Effective personnel for all*. OSEP ideas that work. <https://osepideasthatwork.org/attract-prepare-retain-effective-personnel-all>

- O'Toole, K., Szathmary, K., Thropp, & J., Baeri, V. (2017). Choosing a career path: Why not safety & health? Identifying factors that influence students' choice: Part 1. *Journal of Safety, Health & Environmental Research*, 13(1) 323-344.
- Pascual, N. (2014). Factors affecting high school students' career preference: A basis for career planning program. *International Journal of Sciences: Basic and Applied Research*. 16(1) 1-14.
- Peters, J., French, P., & Cranston-Gingras, A. (2001). Ethics and special education. *Focus on Exceptional Children*, 34(1) 1-16.
- Pennsylvania Department of Education (PDE). (2015, June). *School counseling in the Commonwealth of Pennsylvania: Supporting every student to college and career success*. <https://www.education.pa.gov/Documents/K-12/Career%20and%20Technical%20Education/CEWStandards/Resources/339CounselingPlan/School%20Counseling%20in%20the%20Commonwealth%20of%20PA%20-%20Supporting%20Every%20Student%20to%20College%20and%20Career%20Success.pdf>
- Pennsylvania Intermediate Unit. (2021). *Report of collected vacancies as of November 2, 2021*. Pennsylvania Intermediate Unit.
- Piepenburg, J. G., & Fervers, L. (2021). Do students need more information to leave the beaten paths? The impact of a counseling intervention on high school students' choice of major. *Higher Education*. <https://doi.org/10.1007/s10734-021-00770-z>
- Pudelski, S. (2016). *Rethinking special education due process*. The School Superintendents Association.

[https://www.aasa.org/uploadedFiles/Policy\\_and\\_Advocacy/Public\\_Policy\\_Resources/Special\\_Education/AASARethinkingSpecialEdDueProcess.pdf](https://www.aasa.org/uploadedFiles/Policy_and_Advocacy/Public_Policy_Resources/Special_Education/AASARethinkingSpecialEdDueProcess.pdf)

Reeves, L. M. (2018). Exploring factors toward pursuing a career in special education.

*Journal of Contemporary Educational Research*, 2(5) 21-26.

<https://doi.org/10.26689/jcer.v2i5.480>

Rissinger, J. (2020). *Special education data report 2019-2020*. Pennsylvania Department of Education.

[https://penndata.hbg.psu.edu/penndata/documents/BSERReports/SD\\_Reports/2019-2020/PDF\\_Documents/Speced\\_Data\\_Report\\_State\\_2019-2020\\_Final.pdf](https://penndata.hbg.psu.edu/penndata/documents/BSERReports/SD_Reports/2019-2020/PDF_Documents/Speced_Data_Report_State_2019-2020_Final.pdf)

Samuels, C. (2018, January). Why special educators leave the classroom. *Education*

*Weekly*. <https://www.edweek.org/teaching-learning/why-special-educators-really-leave-the-classroom/2018/01>

School District of Philadelphia. (2020, August 28). *Mission and history: Special*

*Olympics Pennsylvania, Philadelphia*. Special Olympics Pennsylvania - Philadelphia. <https://www.sopaphilly.org/about-us/history-mission/>

Sindelar, P. (2019). *Tools to strengthen educator pipelines and address shortages*.

Centers on Great Teachers and Leaders at American Institute of Research.

[https://gtlcenter.org/sites/default/files/Slides\\_EducatorPipelines.pdf](https://gtlcenter.org/sites/default/files/Slides_EducatorPipelines.pdf)

Smith, A., & Kozleski, E. B. (2005). Witnessing brown. *Remedial and Special*

*Education*, 26(5), 270-280. <https://doi.org/10.1177/07419325050260050201>

Smith, K. (2021). *Office of Dispute Resolution Providing Support for Parents and*

*Educators Annual Report*. Office of Dispute Resolutions. <https://odr-pa.org/annual-report/>

Special Olympics. (2015). *Unified Sports Evaluation Report*.

<https://resources.specialolympics.org/research/unified-sports-research>

Special Olympics. (2020). *Unified Sports Research Overview*.

Special Olympics (2021a, September 27). *Unified Sports*.

<https://www.specialolympics.org/our-work/sports/unified-sports>

Special Olympics. (2021b). *Inclusion*. Inclusion Revolution.

<https://www.jointherevolution.org/inclusion>

Special Olympics. (2022). *Unified champion schools one page snapshot*.

[https://specialolympicspa.org/images/Monthly\\_Update/Resources/Unified\\_Champion\\_Schools\\_-\\_One\\_Page\\_Snapshot\\_Updated\\_2021.pdf](https://specialolympicspa.org/images/Monthly_Update/Resources/Unified_Champion_Schools_-_One_Page_Snapshot_Updated_2021.pdf)

St. John, E. (2000). Majors. *Black Issues in Higher Education*, 17(4), 21-27.

Stephens, T. & Wade, F. (2010) Motivational factors toward pursuing a career in special education. *Education Summer*, 130(4), 581-594.

Stewart, D. (2020, August 16). *The right to education*. Disability Justice.

<https://disabilityjustice.org/right-to-education/>

Strauss, R., Bowes, L., Marks, M., Plesko, M., (1998 March 14). *Who should teach in our public schools? Implications for Pennsylvania's teacher preparation and selection experience*. [Paper presentation]. American Education Finance Association Annual Research Conference, Mobile, Alabama, United States.

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016, September). *A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S*. Learning Policy Institute. <https://learningpolicyinstitute.org/product/coming-crisis-teaching>

Tennessee Department of Education. (2022). *Grow your own*.

<https://www.tn.gov/education/grow-your-own.html#:~:text=Paving%20the%20way%20for%20teaching%20and%20educator%20workforce,registered%20apprenticeship%20program%20for%20teaching%20in%20the%20country.>

Thompson, M. (2011). *Tools for developing a comprehensive K-12 guidance and counseling plan*. Pennsylvania Department of Education.

<https://www.education.pa.gov/Documents/K-12/Career%20and%20Technical%20Education/CEWStandards/Resources/339CounselingPlan/Tools%20for%20Developing%20a%20Comprehensive%20K-12%20Guidance%20Counseling%20Plan.pdf>

U.S. Department of Health and Human Services. (2019). *Special Olympics Unified Sports: Promoting social inclusion through sports*.

<https://health.gov/news/201912/special-olympics-unified-sportsr-promoting-social-inclusion-through-sports>

United States Congress. (2019). *Individuals with Disabilities Education Act*.

<https://sites.ed.gov/idea/statute-chapter-33/subchapter-ii/1415/b>

Volunteerhub. (2021). *Career development: How volunteering can create opportunity*.

<https://www.volunteerhub.com/blog/career-development-volunteerism/>

Welch, M. (1998). The idea of collaboration in special education: An introspective examination of paradigms and promise. *Journal of Educational and Psychological Consultation*, 9(2), 119–142.

[https://doi.org/10.1207/s1532768xjepc0902\\_2](https://doi.org/10.1207/s1532768xjepc0902_2)



Yell, M. L., Rogers, D., & Rogers, E. L. (1998). The legal history of special education.

*Remedial and Special Education, 19*(4), 219–228.

<https://doi.org/10.1177/074193259801900405>

Zhang, D., Wang, Q., Losinski, M., & Katsiyannis, A. (2013). An examination of

preservice teachers' intentions to pursue careers in special education. *Journal of*

*Teacher Education, 65*(2), 156–171. <https://doi.org/10.1177/0022487113510743>

Zirkel, P. (2013). Adjudicative remedies for the denial of FAPE under IDEA. *Journal of*

*National Association of Administrative Law Judiciary, 33*(1) 214-141.

**APPENDICES**

**Appendix A.**

**Special Education Major Survey I**

I have had volunteer experience with people with disabilities. Yes/No

<b>Factors Influencing Choice of Special Education Major</b>	No Degree of Influence	Some Degree of Influence	Influence	High Degree of Influence	Significant Degree of Influence
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
On the scale 1-5 below, with 1 being the lowest degree of influence and 5 being the greatest degree, rank each area on the impact the factor had on your choice of special education as a major.					
The potential for future employment.					
I have other family members/close friends that are/were in the field of special education.					
A teacher(s) that encouraged me to enter the field of special education.					
I experienced receiving special education service.					
Career Counseling in High School					
Starting Salary after graduation					
Interest in the subject matter					
Ease of job requirements					
Challenge of Job Requirements					
Perception of Aptitude in the Field					
Perception of Society of Working in the Field.					
The Type of work the Major will Enable you to do					
Flexibility in Career Path					
Prior Experience Working with Children/People with Disabilities.					

If you have one factor that was the greatest influence in your choice of a major, listed or not listed above, please indicate in space provided: \_\_\_\_\_

**Appendix B.****Email to Special Education Major**

Dear Special Education Major,

As we are aware, Pennsylvania is experiencing a critical shortage of special education professionals. In order to determine the most effective means to address this shortage, I am gathering information for the research for my doctoral capstone and potential solutions to the crisis. I would appreciate your participation in this survey. Your insight will help to provide some potential strategies for future planning and support the completion of my doctoral program. The survey should take no longer than 4 minutes. If you are willing to participate, please click on the link below. Thank you in advance.

<https://www.surveymonkey.com/r/9N555SQ> **Special Education Major Survey**

Respectfully,

Carole Clancy  
California University Doctoral Candidate  
717-803-181

**Appendix C.**

**Informed Consent for Clancy Research Survey**

Dear Potential Research Participant,

Thank you for being willing to participate in my study, An **Examination of the Correlation Between Prior Experience of Working with People with Disabilities and Choosing Special Education as a Major.** Your responses on the survey will provide critical information to ensure students with disabilities have qualified professionals to support their educational experiences.

**Attached is the survey to be taken, but before responding, please review the statements below and indicate agreement by checking the box beside each statement verifying informed consent:**

Statement	Check Indicates Agreement
I understand that I am participating in this research voluntarily.	<input type="checkbox"/>
I affirm I am at least 18 years old.	<input type="checkbox"/>
I have the right to refuse participation at any time.	<input type="checkbox"/>
I understand that any information regarding my identity obtained in connection with this research will remain confidential.	<input type="checkbox"/>
I will not write my name or otherwise indicate my identity on any part of this research.	<input type="checkbox"/>
In giving my consent by signing this form, I agree that the methods, inconveniences, risks, and benefits have been explained to me and my questions have been answered.	<input type="checkbox"/>
I understand that I may ask questions at any time and that I am free to withdraw from the study at any time without causing bad feelings.	<input type="checkbox"/>
My participation in this research may be ended by the investigator or by the sponsor for reasons that would be explained.	<input type="checkbox"/>
I understand by returning the survey, I demonstrate consent to use the data.	<input type="checkbox"/>
I understand that this consent form will be filed in an area designated by the Human Subjects Committee with access restricted to the principal investigator, Carole Clancy.	<input type="checkbox"/>

**Signature of Participant** \_\_\_\_\_ **Date** \_\_\_\_\_

**Thank you for your willingness to advance the best practices for students with disabilities**

**Researcher:**

Carole Clancy  
[clancjma@yahoo.com](mailto:clancjma@yahoo.com)  
 717-803-1811

**Faculty Advisor:**

Kevin Lordon  
[lordon@calu.edu](mailto:lordon@calu.edu)

Approved by the California University of Pennsylvania Institutional Review Board. This approval is effective 09/23/2021 and expires 09/22/2021.

**Appendix D.**

**Past Unified Sports Participant Survey II**

1. I have participated in Unified Sports for \_\_\_\_\_year(s).
  - a. One
  - b. Two
  - c. Three
  - d. Four or more
  
2. I had experience working with students with disabilities before participating in Unified Sports.
  - a. Yes
  - b. No
  
3. I am currently
  - a. Working.
  - b. In the military.
  - c. In college.
  
4. My current or future employment will involve working directly with people with disabilities.
  - a. Yes
  - b. No
  
5. My major or future major is
  - a. If known indicate: \_\_\_\_\_
  - b. NA
  
6. On a scale of 1-5 with 1 being no significant impact and five being extensive influencing impact rate the following statements:

Questions	Rate				
Unified Sports has positively impacted my plans of a career after high school	1	2	3	4	5
Without Unified Sports, I would not have known working with students with disabilities was a potential career option.	1	2	3	4	5
Unified Sports was a significant impact on my decision to pursue a career in special education or related field working with people with disabilities in the future.	1	2	3	4	5
Unified Sports was a significant factor in determining that I did not want to work with people with disabilities as a career in the future.	1	2	3	4	5

**Appendix E.****Email to Unified Sports Participants**

Dear Previous Unified Sports Participant,

Pennsylvania is experiencing a critical shortage of special education professionals. In order to determine the most effective means to address this shortage, I am gathering information for the research for my doctoral capstone and potential solutions to the crisis. I am gathering information as to how involvement in Unified Sports might influence a participant's future career. I would appreciate your participation in this survey, which will be open to take until *Feb. 11, 2022*. Your insight will help to provide some potential strategies for future planning and support the completion of my doctoral program. ***The survey should take no longer than 4 minutes.*** If you are willing to participate, please click on the link below. Thank you in advance.

<https://www.surveymonkey.com/r/9NGXLCF> Unified Sports Survey

Respectfully,

Carole Clancy  
California University Doctoral Candidate  
717-803-1811

**Appendix F.****California University of Pennsylvania IRB Approval**

**Institutional Review Board  
California University of Pennsylvania  
Morgan Hall, Room 310  
250 University Avenue  
California, PA 15419  
[instreviewboard@calu.edu](mailto:instreviewboard@calu.edu)  
Melissa Sovak, Ph.D.**

**Dear Carole,**

**Please consider this email as official notification that your proposal titled " An Examination of the Correlation Between Prior Experience of Working with People with Disabilities and Choosing Special Education as a Major" (Proposal #20-037) has been approved by the California University of Pennsylvania Institutional Review Board as amended with the following stipulations:**

The following needs to be addressed before approval:

- In regards to the informed consent:
  - the researcher's email address should be their CalU email, not a personal one to reflect affiliation with the university as well as to insure privacy
  - the checklist point #7 is not addressed (needing a statement that the results are anonymous)
  - the unique participant number should not be on the informed consent as that links the deidentified # with the participant's information--if the researcher needs to keep track of those linkage codes, that should be kept somewhere separate
  - Checklist point #8 requires that there is a statement of risks/benefits--researcher lists a checkbox stating that this was explained to them but this should be in print, especially when the researcher will not have contact with each participant.
  - Checklist point #11-- researcher lists the last point in checklist about the *consent form* (please check for the typo) will be filed in an area but this should be ALL research materials
- 
- I also have general concerns about the confidentiality and participant recruitment/data collection procedures. This is based off of my understanding from what the researcher described. If I am mistaken, please let me know and provide clarification.
- 
- By the professor sending the researcher those student emails, that potentially violates student privacy because the email is unsolicited. Furthermore, the students getting a direct individual email from the researcher could constitute make the participant feel pressured to respond. **Remedy:** I suggest that the survey be forwarded with recruitment information to the professors (as listed in the description) and that the professors are instructed to forward this to any individual that fits the participant description.



- I also am unclear as to what the format of the electronic survey will ultimately be. For example: Is it a word document emailed or is it a survey monkey or a Google form? In addition, there is an inherent risk in mailing the survey and informed consent back as things may be lost in the mail, could risk the confidentiality if received by someone not intended, etc. I would want to know where those surveys would be mailed to. **Recommended Remedy:** I would suggest all of the surveys be done electronically via a platform that ensures privacy and confidentiality. I would like to know the platform and (if the mail would still be used) what the justification is for that form of data collection, where those will be sent, and how that privacy will be kept.

**Once you have completed the above request you may immediately begin data collection. You do not need to wait for further IRB approval. At your earliest convenience, you must forward a copy of the changes for the Board's records.**

**The effective date of the approval is 09/23/2021 and the expiration date is 09/22/2022. 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 09/22/2022 you must file additional information to be considered for continuing review. Please contact [instreviewboard@calu.edu](mailto:instreviewboard@calu.edu). Please notify the Board when data collection is complete.**

**Regards,  
Melissa Sovak, Ph.D.  
Chair, Institutional Review Board**

**Appendix G.****Millersville University IRB Approval**

P.O. Box 1002  
Millersville, PA 17551-0302  
[www.millersville.edu](http://www.millersville.edu)

Phone: 717-871-4457 | 717-871-4146  
[Sponsored.programs@millersville.edu](mailto:Sponsored.programs@millersville.edu)

January 27, 2022

RE: IRB Protocol No. 9923299025, An Examination of the Correlation Between Prior Experience of Working with People with Disabilities and Choosing Special Education as a Major

Carole,

Your IRB Protocol No. 9923299025, “An Examination of the Correlation Between Prior Experience of Working with People with Disabilities and Choosing Special Education as a Major” was reviewed by two members of the MU IRB Committee and determined to be **exempt** under Category 2 of 45 CFR 46 as amended. Specifically:

Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), *survey procedures*, *interview procedures* or observation of public behavior provided that information obtained is recorded in such a manner that human subjects cannot be identified, directly or through identifiers linked to the subjects.

The proposed project was determined to be minimal-risk. Please advise the IRB of any changes in project scope or methodology should they occur. Your research will not require continuing review, but please do inform the IRB when you have completed data collection.

Thank you,

Rene Muñoz, Ph.D  
Director, Sponsored Programs and Research Administration  
Millersville University of Pennsylvania

Millersville University is an Equal  
Opportunity/Affirmative Action institution. A  
member of Pennsylvania's State System of  
Higher Education.

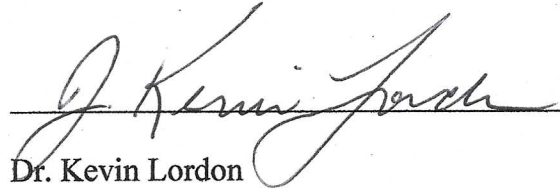
California University of Pennsylvania  
School of Graduate Studies and Research  
Department of Secondary Education and Administrative Leadership

We hereby approve the capstone of

Carole Lynn Clancy

Candidate for the Degree of Doctor of Education

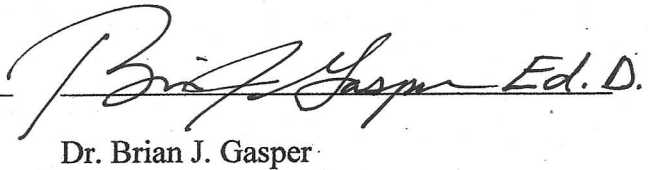
7/7/22

  
Dr. Kevin Lordon

Doctoral Capstone Faculty Advisor

Doctoral Capstone Faculty Committee Chair

7/7/22

  
Dr. Brian J. Gasper

Chief, Division of Instructional Quality

Pennsylvania Department of Education