

**Promoting Inclusion in the Adaptive Physical Education Classroom Through  
Peer Partners**

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# **Promoting Inclusion in the Adaptive Physical Education Classroom Through Peer Partners**

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This dissertation in practice centers on the problem of practice that students with disabilities are systematically excluded from mainstream health and physical education classes to the detriment of their health and well-being. This dissertation improvement project tests the effects of Partners in PE (PPE) by utilizing a 3-session peer-to-peer curriculum to promote inclusion of general education students into an existing adaptive PE (APE) course at Bethel Park High School in Bethel Park, Pennsylvania. The PPE program was implemented by the APE teacher and 4 “Partners” (i.e., general education students selected for the course), as well as, attended by 10 “Athletes” (i.e., students with disabilities) and 3 paraprofessionals. This dissertation in practice was guided by two inquiry questions: 1) What are the experiences and perspectives of the Partners after participating in the PPE program? and 2) What was the experience of the APE teacher and paraprofessionals regarding implementation and perceived outcomes of the PPE program? The primary investigator collected observations and field notes throughout the program, conducted an interview with the APE teacher, held focus groups with the Partners, and presented an open-ended survey to the paraprofessionals following the PPE program. Qualitative data was transcribed and coded using the content method and analyzed for key categories and themes. Three themes were identified in the data, including: 1) overcoming obstacles to become friends, 2) positive experiences in the program, and 3) recommendations for a future PPE program. Main findings reflected Partners’ lack of previous experience and exposure to the Athletes, and the short training

of the Partners, which presented challenges to program implementation. However, the PPE peer-to-peer program was able to build relationships between students and reap benefits for all involved. The data can be used to inform the administrators and school district which may well influence change regarding the policies and procedures to promote inclusion and relationship building in schools.

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## Preface

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I sincerely thank my entire support team for their love, encouragement, patience, and grace. Without my family and friends, I would not have made it this far.

To my future students, may you always remember the importance of inclusion, respect, and honor.

## **1.0 Naming and Framing the Problem of Practice**

### **1.1 Broader Problem Area:**

Students with disabilities add to the diversity of a classroom and promote an enriching experience for all involved. Armstrong (2016) noted that new research is emerging regarding the many strengths of those with disabilities. These include high spatial ability for those with dyslexia, creative thinking in students with ADHD, systemic capabilities (such as excellence with computers) among those with autism spectrum disorders, as well as personal charm and human warmth in students with intellectual abilities such as Down syndrome. In an inclusive PE classroom, children with disabilities can experience what it is like to be considered like their peers and how it feels to learn in a regular classroom environment. Consequently, these additional needs students will be inspired by positive performances of their peers, and they will rise to the higher expectations of their teachers.

All students, regardless of ability, should get the recommended 60 minutes or more of daily physical activity (CDC, April 2020). However, the CDC states that, “only 24% of children and adolescents with disabilities are meeting the recommendation of 60 minutes or more daily” (2016, NSCH). Physical activity among students with disabilities should be receiving the same amount required for students without disabilities regardless of their abilities. In a successful Inclusive Physical Education program, all students are fully engaged in instructional activities, share equally, and learn together. Inclusion or inclusive physical education is when, “All children, regardless of ability or disability, have the right to be respected and appreciated as valuable members of the school community, fully participate in all school activities, and interact with peers of all ability

levels with opportunities to develop friendships” (CDC, 2020). It appears the negative effects of separating children with disabilities from their peers far outweigh any benefit to smaller classes (Audette & Algozzine, 1997). Exclusion from a social group can bring up feelings of isolation, anxiety, doubt, confusion, humiliation, loneliness, and sadness, among many other painful emotions. There are fundamental reasons why integrating students with disabilities into the mainstream of education improves the learning outcomes for all children (Armstrong, 2016).

Creating an inclusive culture for physical education and physical activity helps every student learn to lead a healthy and active lifestyle (CDC, June 2020). The Individuals with Disabilities Act of 1997 (IDEA) mandates that students with disabilities be educated with their non-disabled peers in as least restrictive environment as possible (pecentral.org). Based on IDEA, children with disabilities are increasingly being included in physical education classes (Lorenzi, 2009).

According to U.S. Department of Health and Human Services (US, 2018), the physical activity guidelines for Americans states that, “Childhood and adolescence are critical periods for developing movement skills, learning healthy habits, and establishing a firm foundation for lifelong health and well-being.” Encouraging children of all ages to stay physically active helps foster health and fitness habits early on. Furthermore, the US Department of Health and Human Services stated, “It is important to provide young people opportunities and encouragement to participate in physical activities that are appropriate for their age, that are enjoyable, and offer variety to children. The recommended daily movement for and children and adolescents ages 6 through 17 years should be 60 minutes (US, 2018, pg.48).

## **1.2 Organizational System**

### **1.2.1 District**

The Bethel Park School District (BPSD) is a midsized, suburban school district in Allegheny County within the South Hills of Pittsburgh in Bethel Park, PA. The district covers the Municipality of Bethel Park which is a suburb of Pittsburgh. Within the school district at Bethel Park, there are five elementary schools which host grades K-4, and children are assigned to a specific school based on proximity of their home to that school. There are 2 middle schools, Neil Armstrong Middle school that host students grades 5-6<sup>th</sup> and Independence Middle School houses students 7-8<sup>th</sup> grades with students then reporting to the Bethel Park High School (BPHS) from grades 9<sup>th</sup>-12<sup>th</sup>. Bethel Park has only 8% racial/ethnic minority enrollment in their student body. Bethel Park has over 4,237 students enrolled in their 8 schools. Bethel Park's mission statement is, to lead an educational partnership with the Community, and maintain an environment that challenges all students to reach their potential as lifelong learners and responsible members of society (Cromie, 2021). Bethel Park's vision for the district incorporates responsible, independent, and collaborative problem-solving skills to address the multifaceted social, economic, and political issues that are presented daily in our lives.

### **1.2.2 Bethel Park High School**

Bethel Park High School is a four-year, comprehensive high school located in Bethel Park, Pennsylvania, with an enrollment of 1,391 students in grades 9–12 for the 2018-2019 school year.



There are over 100 teachers within the high school, and the ratio student to teacher is 14:1. The area and school district is in a suburban area within the south hills of Pittsburgh, PA.

All students in the schools in Pennsylvania are required to attend courses of instruction in physical education (Ford, 2022). Presently, Bethel Park has not included the current PE teacher to help with this process. The current PE program at BPHS offers both general PE and APE classes for students with disabilities. These courses are to be adapted to meet the needs of the individual student (Ford, 2022). Therefore, a student who is unable to participate in the regular program, due to a specific physiological condition, should have his/her program modified to meet and/ or improve their condition. Higher functioning students with services such as Individualized Education Plan (IEP), Section 504 plans, and/or learning support needs attend general PE classes. Lower functioning students, including those with greater cognitive and physical disabilities, attend the Adapted PE (APE) class with the APE teacher.

The Adaptive Physical Education (APE) class meets five days a week. The APE class focuses more on physical activity, fitness and fine to gross motor movements and skills throughout the week. During the 2021-2022 school year, there were 10 students enrolled within the APE class, with one lead PE teacher and three paraprofessionals for support. The types of disabilities within the APE class include students with autism and down syndrome (intellectual disabilities) and vary between low to high functional abilities. The PE teacher is in their second-year teaching APE and currently there is no curriculum for APE course at BPHS. The teacher creates a schedule weekly on what is going to be taught, skills to be emphasized, and game or stations created for each lesson. The students will learn the skill and concept taught each week.

As a former employee of Bethel Park, as well as alumni and coach, I am affiliated with Bethel Park High School's health and physical education teacher, Lisa Serafin. Given this previous

involvement with this district as a resident, coach, and employee, I will use my resources within the school district and health and PE department to complete this problem of practice and study students within a PE classroom.

### **1.3 Stakeholders:**

The stakeholders involved with this problem of practice are the health and physical education (HEPE) teacher, administration, students, and parents.

#### **1.3.1 Health and Physical Education Teacher**

The first stakeholder is the health and physical education teacher. The preferred outcome would be to provide the teacher with the correct resources, and support to increase the student participation in PE classroom regardless of disabilities. The PE teacher never had training to prepare themselves for APE course, and learned through experience and conversations with colleagues, as well through their teaching certification. Within the last two years (include a statement of what exact training did occur).

#### **1.3.2 School Administration**

Administrative officials include principals and direct supervisor of special education. Principals put high value on students, teachers, and staff. The potential barriers for administration include financial loss, effort, or time to implement change. Although administrators do care for

the well-being of every student, it is uncertain if they truly understand issues regarding disabilities in a PE classroom. It is anticipated that administrators would want to see change and positive outcomes for the students and school district and engage in understanding solutions to this important issue.

### **1.3.3 Parents/ Guardians**

Parents and guardians are the most influential stakeholders in generating interest around inclusion for their child. Parents are advocates for their child and understand the significance of voicing their children's needs. Furthermore, parents who approve their child with disabilities to participate in regular scheduled health and physical activity are more likely to see positive outcomes from this environment.

### **1.3.4 Students**

Students should have an opportunity to participate in the class with their peers with and without disabilities. Educating students should include character building and include their peers through acceptance regardless of physical appearance including cognitive and psychomotor abilities.

Some types of cognitive disabilities are aphasia, autism, attention deficit, dyslexia, dyscalculia, intellectual and memory loss (Sims, 2019), in addition to other types. Due to functional limitations, students with disabilities experience restrict opportunities for participation in extracurricular physical activities compared to their typically developing peers (King et al. 2009). Participation in physical education is deemed important in developing life skills and motor

proficiency for students with disabilities. The students in the APE class are in the least restricted environment (LRE) classrooms as these students are lower functioning and need more assistance. The students will see general education students in the lunchroom and walking in the hallways to class.

#### **1.4 Statement of the Problem of Practice:**

The problem of practice is students with disabilities are systematically excluded from health and physical education (HPE) classes to the detriment of their health and well-being. This problem is significant, and an inclusive PE curriculum could provide each student an opportunity to participate in lessons, feel valued, and improve confidence. The significance of this problem requires methods to ensure and benefit all students within the PE program, while minimizing any negative outcomes. There is urgency for improving this problem in the organizational system due to barriers associated with inclusive education and inclusive PE. Students with disabilities need physical activity for growth and development, however, finding an adequate type of physical activity for children with disabilities can be complex. Furthermore, trying to include students with disabilities in an ordinary physical education class is challenging.

This problem can feasibly be addressed through collaboration with a PE teacher and school district administration along with the students in physical education class. Evidence indicates that students with disabilities do not meet the recommended 60 minutes of moderate-to-vigorous PA. The students with disabilities who participate in PA, may encounter barriers while facilitators may also affect the amount and type of PA these children do. When students with disabilities join in, they feel included, and experience meaningful learning in PE, while teachers create opportunities

for students to control their own learning, and work. Participation, as a measure of inclusion may therefore add valuable information to academic, social, and emotional outcomes of students in need of special support (Maxwell et al., 2018).

The majority of schools who are not practicing inclusive PE may include educators who may not feel comfortable, lack of resources or certifications, and fear an inability to have a safe classroom. Students with disabilities challenge all to provide better ways to educate every student. To create an effective inclusive classroom, teachers need to build a learning environment that provides a variety of ways in which learning content is presented, interpreted, and assessed (Armstrong, 2016). Furthermore, reasonable environmental modifications must be included as a component of inclusive PE program to build a safe environment within PE classroom and provide fun for students with and without disabilities. The proper resources for each student's needs, and any modifications are also necessary to provide the best learning environment possible for all students. On the other hand, by practicing full inclusion in the classroom from the beginning of a child's schooling experience, attitudes of acceptance, tolerance, empathy, generosity, and kindness will resound for generations to come.

### **1.5 Review of Supporting Knowledge**

In the following section, supporting knowledge is provided to frame how the localized problem is currently understood in the scholarly and professional literature. Specifically, the literature will be reviewed in the following areas:

### **1.5.1 History of Inclusion in Schools and the Foundations of Adaptive Physical Education**

1. Best practices and programs for facilitating inclusion of students with and without disabilities in K-12 physical education class settings.
2. Best practices to train physical education teachers for inclusive classrooms

### **1.5.2 History of Inclusion in Schools**

In practice, the meaning of inclusion of individuals who are different from the majority has been fraught in many ways. Learning about the evolution of the education system and its treatment of students who are different in terms of race, gender, or ability can guide us as educators to lead a way forward. Challenges, as well as benefits, of inclusion continue to emerge for educators, children with disabilities, and their peers without disabilities. However, education for students with disabilities has improved greatly. Framed as an alternative to special education, inclusive education expands the responsibilities of schools and school systems to increase access, participation, and opportunities to learn for marginalized populations of students. In general, physical education classroom settings, where classmates attend PE with others who also have physical and sensory disabilities in elementary and secondary education participants reported generally positive experiences with their classmates with disabilities suggesting they did not see the effects of inclusion as detrimental (Lund & Seekins, 2014). Many advocates believe that an inclusive setting may contribute to enhanced self-esteem for children with disabilities and increased social acceptance on behalf of their peers without disabilities (Place & Hodge, 2001).

### **1.5.2.1 Federal Laws (Section 504 of the Rehabilitation Act of 1973)**

Inclusion in education began to appear initially in 1980's and was framed as an alternative for special education to expand inclusion in schools and school systems (Proffer, 2018). The purpose of inclusion is to make all students feel welcome, safe, and secure in the classroom environment, and to learn alongside of their peers. There are several key regulatory actions that were passed to promote inclusion in schools, including Section 504, Rehabilitation Act of 1973, and Title II Americans with Disabilities Act (ADA). The Section 504 prohibits discrimination based on any disability in extracurricular activities, programs and sports that receive any Federal assistance from the Department of Education (Protecting, 2020). Each of these regulatory actions are federal civil rights laws that prohibit disability discrimination, including in schools (Inclusion, 2020). Section 504 is a federal law that grants nondiscrimination for any programs or activities (Section 504, 2020). This law is an anti-discrimination civil rights statute that requires the needs of students with disabilities to be met as adequately as the needs of the non-disabled (Durheim, 2013). Section 504 is a civil rights statute, requiring that schools, public or private, who receive federal financial assistance for educational purposes, not discriminate against children with disabilities.

### **1.5.2.2 Education for All Handicapped Children Act (EHA)**

The Education for All Handicapped Children Act (Public Law 94-142) was created in 1975 to support states and localities in protecting the rights of, meeting the individual needs of, and improving the results for infants, toddlers, children, and youth with disabilities and their families (Rhodes, 2007). In 1975, the federal Education for All Handicapped Children Act (EHA) required public schools to guarantee a free, appropriate public education to students with disabilities.

EAHCA requires public schools to provide appropriate educational services for all individuals with disabilities ages 3-21.

### **1.5.2.3 Individuals with Disabilities Education Act (IDEA)**

Individuals with Disabilities Education Act (IDEA) ensures that all children with disabilities are entitled to a free appropriate public education to meet their unique needs and prepare them for further education, employment, and independent living (American, 2017). IDEA is Federal law that governs all US special education services within schools. The theme of IDEA evolved from EHA as the case law on the federal level tackled the problem of public schools providing those with disabilities a similar opportunity as all students must learn and achieve at the same level that their fellow students without disabilities to work daily (EHA, 2021).

In the Section 504 of the IDEA, regulations require a school district to provide a “free appropriate public education” (FAPE) to each qualified student with a disability who is in the school district’s jurisdiction, regardless of the nature or severity of the disability. Under Section 504, FAPE consists of the provision of regular or special education and related aids and services designed to meet the student’s individual educational needs as adequately as the needs of nondisabled students are met (ITCA, 2008). The right to FAPE is an educational entitlement of all students in the United States, guaranteed by the Rehabilitation Act of 1973 and the IDEA (Free, 2010). The right to a Free Appropriate Public Education (FAPE) is an educational entitlement of all students in the United States, guaranteed by the Rehabilitation Act of 1973 and the IDEA (Free, 2010).

Although many strides have been made in realizing the intent of the law, schools often still treat inclusive education as a more challenging way of supporting students with disabilities. Participation in inclusive schools and communities provides students with and without disabilities



the experience of a society that values and includes all its citizens (Center, 2018). As a result, society began to shift to acknowledge the Individuals with Disabilities Act (IDEA) for students to become accepted in general education classes and receive the proper education within the least restrictive environment (LRE) (Morin, 2020). People with disabilities have had to battle against centuries of biased assumptions, harmful stereotypes, and irrational fears. Inclusive schools provide the opportunity for all students to develop attitudes, values, and skills needed to live and work alongside others in a diverse society (Center, 2018). Several Acts were passed to allow individuals with disabilities the ability to access the resources and support they needed. Considering the needs of students with disabilities, the federal government enacted legislation to mandate equal opportunity in education leading to the formation of IDEA (APENS History, 2008). IDEA states that students with disabilities are to participate in physical education with children without disabilities to the maximum extent appropriate (Free, 2010). This act required that all students with disabilities have access to physical education in a normal school environment and that everyone receive an Individualized Education Program (IEP) to address the specific and appropriate needs of each individual student (Kunkel, 2017).

#### **1.5.2.4 Americans with Disabilities Act (ADA)**

In the 1980s, activists began to lobby for civil rights for individuals with disabilities which led to the Americans with Disabilities Act (ADA) which was passed in 1990 to ensure equal rights, equal access, and equal treatment to all individuals (ADL, 2018). Accountability at the individual level is provided through individualized education plans (IEPs) developed based on each child's unique needs. Federal law mandates that when writing an IEP, a multidisciplinary team must determine that: (1) a child has a disability; and (2) special education is required, and related services would be beneficial beyond the general education program (Baumel, 2014). Seven

areas involved in this IEP process include: 1. Parent/guardian; 2. The student.; 3. General education teacher; 4. Special education teacher; 5. Administrator; 6. Director of special education/special services; and 7. Transition service agency. The IEP is a document meant to design and meet the child's unique needs within education to guarantee the necessary support to meet the child's measurable goals (Joel, 2020).

In summary, these laws are to help assess and advocate for students with disabilities while promoting their learning in education classroom. It is important to understand and become knowledgeable on these laws above to be more aware of what is offered in schools today within education and elsewhere.

### **1.5.3 Best Practices for Inclusion in PE Classrooms**

#### **1.5.3.1 Adaptive Physical Education (APE)**

Adaptive Physical Education (APE) has been adapted or modified so that it is as appropriate for the person with a disability as it is for a person without a disability (APENS, 2008). APE is a service, not a setting. If a student has a disability and an IEP, the school district must provide physical education as a part the student's special education program. This program allows students with more severe disabilities to participate in PE with students like them. APE certification is not a requirement for PE teachers, but this certification helps teachers become prepared to meet the needs of all individuals (APENS, 2008). Adapted PE teachers provide planning services, assessments for students, IEP placement, advocacy, and coordinated resources (APENS, 2008). Inclusive physical education and physical activity programs in schools provide equal opportunities for all students, including those with disabilities. All students, regardless of ability, should get the recommended 60 minutes or more of daily physical activity (Inclusion,

2020). PE teachers can teach with modified equipment, create a safe environment, and adapt assessments and strategies to teach to meet the needs of all students. The policies that explain these requirements for federal law and state to meet are Americans with Disabilities (ADA), Section 504, and IDEA. The National Consortium for Physical Education for Individuals with Disabilities (NCPEID), a leader in advocacy for high-quality physical education for students with disabilities, offers a state-by-state listing of universities that offer advanced teacher preparation in APE (NCPEID, 2020).

“Adaptive” is a term that describes behaviors, skills, or functions. The goal for specially designed physical education services is to modify equipment, rules, environment, or instruction to best suit the child’s needs, not to change the student (Answering, 2016). To qualify for individual special education services, including APE, IDEA mandates the submission of a referral and parental consent for evaluation. Some school districts elect to establish qualifying criteria for APE services. In many states and school districts, teachers who hold certification as a general physical educator (GPE) are also allowed to provide APE services to students with disabilities. The terms “adapted” and “adaptive” should never be used interchangeably when describing specially designed physical education services (Sherrill, 1998).

Federal law mandates that physical education be provided to students with disabilities and defines Physical Education to help develop motor and physical skills, fundamental skills, and group/individual sports (APENS, 2008). Since 1975, physical education has been a component of the definition of special education (Fit and Healthy, 2019). IDEA requires the participation of students with disabilities in state and district-wide assessments (Pennsylvania, 2020).

### **1.5.3.2 Comprehensive School Physical Activity Program (CSPAP)**

The best practices and programs which facilitate inclusion in PE consider students with unique needs, have the proper IEP and Section 504, include APE and Unified PE, follow a Comprehensive School Physical Activity Program (CSPAP), and include the perspectives of both PE teachers and students without disabilities (Center, 20213). People with disabilities face significant barriers when attempting to access health and wellness activities. The purpose of inclusion is to provide simple advocacy strategies that physical education teachers could use that reinforce classroom content as a contribution to the school mission. Students with exceptions can become the norm in school, no longer separated from their peers. The most positive aspect of inclusion with individuals with disabilities is that it allows students to be a part of the mainstream classrooms and assists the students with transitions within the school system K-12 and beyond.

A Comprehensive School Physical Activity Program (CSPAP) ensures physical activity opportunities that encourage inclusion before, during and after school if accessible (Active, 2019). The purpose of inclusion in physical education is to welcome and include all individuals with and without disabilities. In the CSPAP, the process is to develop, implement, and evaluate the proper plan for the student's well-being and learning. By implementing and developing resources, more physical activity will be taught within the lessons that will aid in the promotion of the concept of CSPAP. The CSPAP implements planning for increase physical activity to address each student's needs. The program evaluation of CSPAP is defined and used to document what happens within the program and by what means can improvements of program be implemented. Within the CSPAP development process, there are two guides (i.e., First Discover Inclusive School Wellness and I Can Do It programs) to help address inclusion and align CSPAP within the K-12 school setting.

Full inclusion begins with the recognition that students with disabilities are integral members of the school community and must be more than just acknowledged as an afterthought.

The CDC has six recommended actions for state leaders to promote inclusion in physical education and physical activity within the school districts (CDC, 2020). The six recommended actions for inclusion within PE are the following: 1. Laws and policies; 2. State-level data for education; 3. State and district collaboration; 4. Conduct assessments; 5. Providing training and 6. Engaging student partner programs within Higher Education.

The first recommended action to promote inclusion states that laws and policies regarding participation of students with disabilities in PE classroom are shared with district and school staff (CDC, 2020). The second recommendation is to share state-level data with educational and health leaders on students with disabilities. Third, identify and reach out to any state and district partners who are already leading inclusion efforts and identify potential collaboration opportunities. Fourth, conduct assessments of current inclusion activities and needs at the district and school level. Fifth, provide training for district and school staff (e.g., PE teachers, general education teachers, faculty, and staff) within professional development days, conferences, or teaching lessons. The last recommendation is engaging partners, such as universities/college programs who train current and future school leaders, PE teachers and classroom teachers on best practices and policies for inclusion (Inclusion, 2020). This would include learning about how to make adaptations and accommodations to facilities, rules, equipment, instructions, and assessment.

Inclusion in PE honors all kinds of student diversity, not just disability, as an opportunity for learning about how everyone can become physically active through a variety of movement and fitness activities (Tripp, Rizzo, & Webbert, 2007). Inclusion is a collaborative, student-focused process where students with disabilities learn life skills and enjoy opportunities to grow up with

their peers in a dynamic, and safe meaningful environment that a physical education program can provide (Tripp, Rizzo, & Webbert, 2007).

School administrators, including principals, play a critical role in successful inclusion in schools. Program administrators need to understand that students with disabilities should also become physically educated and prepared for healthy active lifestyle outside of school (Tripp, Rizzo, & Webbert, 2007). Administrators are influential and may influence teachers' intentions toward inclusion of students with disabilities. Good administrators ask their teachers what they need to effectively do their jobs and then work diligently to get the teachers the required tools, resources, and schedules that best support students and goals. Relationships established among staff involved in creating inclusive learning experiences can support such initiatives, resulting in increased learning for students throughout a school. While it appears, there are many inaccurate perceptions of inclusion, leaders must clearly define guidance to all faculty and parents (Network, 2019). The guidance provided by the administration is paramount as to how to lead students within the inclusion education more so, in PE classroom, and as well as, their guidance on best approaches for each student. Administrators, including principals, have active participation in the most single important predictor of success in implementing change, improving services, or setting a new course to incorporate more inclusive education within the PE classroom.

### **1.5.3.3 Ecological Task Analytic Teaching (ETAT)**

Another element that promotes inclusion includes “ecological task analytic teaching” (ETAT) of instruction and curriculum which includes peer tutors, cooperative learning activities, and peer collaboration (Tripp, Rizzo, & Webbert, 2007). Complex lesson content requires more instruction time to teach and plan, and this study showed that as a result of more instruction, all student groups were more on-task. More instructions, closer communicative proximity and higher

student engagement in high-level teaching provides students with more learning opportunities and facilitates feed-back and feed-forward, and individual support to students with disabilities (Bertills, Granlund, & Augustine, August 2019). Feed forward looks ahead to subsequent assessments and offers constructive guidance on how to do better. The feedback and research to help ensure the assessment of the student has developed impactful learning. ETAT promotes inclusion by peer-to-peer interaction, collaboration with others, and supports the inclusive PE classroom. For PE teachers, ETAT helps develop the appropriate activities, use of equipment, and modification of the environment to ensure safety and success of students. Environmental adaptations can include both curriculum modifications (what is taught) and instructional modifications (how it is taught).

Inclusion means everyone belongs in a school that is a “community” of learners. Long-term planning for PE teachers can determine what each student’s potential is to be physically active and decide how to provide each student with opportunities to achieve their potential (Tripp, Piletic, & Babcock, 2004). “Inclusion” is not just being together in the same space, but should consider all children engaging in meaningful activities, sharing equal status, and learning together. Inclusion is a “process,” and there is no exact measure of success (Tripp, Piletic, & Babcock, 2004). An inclusive environment must be kind and supportive, where students can succeed and encourage one another in and out of school community.

Lastly, storytelling creates opportunities for stakeholders (e.g., general education teachers, PE teachers, Special education teachers and administration) in the inclusive process to talk and share about what is the best approach for each student and learning environment. Storytelling can be included and utilized within PE classroom to promote improvement in listening skills, enhancement of the interaction within the classroom, and motivation and engagement of students. Storytelling allows students to open the door to their imagination. As physical educators, the

responsibility is to develop the whole child. Physical Education is one of the only subjects that affect mental cognition, physical development, and social development. The use of storytelling is to help improve the whole child in these areas.

Physical education teacher's role within inclusive PE is to create lessons for students with differing abilities and learning styles to ensure understanding and participation. PE teachers can modify equipment and lessons to reach all students regardless of abilities, and model respect to encourage peer-to-peer interaction. Curricular practices foster inclusive education include community building and teaching student responsibilities (Tripp et al., 2007). Highly qualified teachers should provide students with sport values (i.e., respect, fair play, tolerance), and support skills, confidence, knowledge and understanding to make good decisions about physical activity throughout the lifespan to contribute to their personal well-being and healthy and active lifestyle (UNESCO, 2015). Furthermore, in this research of inclusive PE environments, individual fundamental differences such as personal well-being and health, physical abilities and talent, external circumstances, motivation, and different perspectives, should be a consideration. A physical education teacher must look beyond students' achievements to include group-performances and whole class success. For the inclusive environment of PE, teachers must change the culture of the community to support all students to lead in a healthy and active lifestyle throughout their lives (Tripp, Rizzo, & Webbert, 2007). The best practice to promote inclusion in PE would consider the environment and outcomes one wants to see from all students.

#### **1.5.4 Best Practices to Train Physical Education Teachers**

In the U.S. where inclusive policies have been in place for over twenty years, most universities/colleges with physical education teacher education programs require at least one



introductory adapted physical education course (Block, Kwon, & Healy, 2016). Even with this course, PE teachers are still reporting that they do not feel equipped or confident in providing accommodations for students with disabilities. This lack of training could be improved through an improved physical education teacher education (PETE) curriculum (Jin, Yun & Wegis, 2013). During the 1990's, it was noted that prospective physical educators often lack the confidence to teach students with disabilities (DePauw, 1996). Physical Education Teacher Education (PETE) preparation programs are challenged to meet the demands of how best to prepare highly qualified professionals, which includes the ability to teach students with disabilities in physical education (Piletic & Davis, 2010). This research for the best practices for PE teachers, identified the following: 1. Differentiating Instruction, 2. Adaptive Physical Education, 3. Talking about inclusion, 4. Universal Design for learning (UDL), and 5. Professional Development (PD).

#### **1.5.4.1 Differentiating Instruction**

Differentiating instruction in physical education is adapted physical education for all learners in an inclusive classroom environment (Ellis et al., 2009). With differentiating instruction, students are set up for success and are taught to identify their strengths. While adapted physical education has the focus of adapting or modifying the curriculum, activities, or environment to meet the needs of students with disabilities (Ellis et al., 2009). Also, differentiated instruction has the focus of modifying the content, learning activities, outcomes, and environment to meet the needs of all diverse learners (Ellis et al., 2009). This approach to teaching brings out the best in each individual student and builds a fun, effective and encouraging environment. Differentiated instruction does take time, energy, attention, and patience; yet the outcome is well worth the energy. By assessing each individual student and setting up effective short- and long-term goals, as well as, peer-to-peer group work, the student will experience an improved chance for success.

#### **1.5.4.2 Adaptive Physical Education**

SHAPE America seeks to ensure Adaptive Physical Education (APE) services are delivered to students by a state certified/licensed teacher endorsed to teach adapted physical education. SHAPE stands for Society of Health and Physical Educators and their purpose is to advance professional practices and promote research related to health and physical education, physical activity, dance, and sports (SHAPE, 2021). Current research suggests that offering only one course in adapted physical education does not provide a high level of mastery in content knowledge for future physical educators who will be teaching students with disabilities in physical education (Pilectic & Davis, 2010). The importance of movement in physical education is evidenced by its inclusion in the first two NASPE standards for K-12 physical education (NASPE, 2004). Physical education class as part of the school day provides an opportunity for all children to learn about physical movement and engage in physical activity. Adapted or specially designed physical education (APE) is about meeting the unique needs of individual students with disabilities. In cases where the students with disabilities could not practice the drills with the entire class due to their limitations, instructors prepared a special set of drills in advance, allowing these students to practice these drills with the volunteer students separately from the class (Lidor & Hutzler, 2019).

#### **1.5.4.3 Talking About Inclusion.**

An inclusive environment emphasizes respect, acceptance, and cooperation of core values in the classroom and creates an environment that recognizes differences and helps others focus on what they can do (Specialty, 2019). Furthermore, one study (Specialty, 2019) suggested potential strategies, including talking to your class about inclusion, using “people first” language, getting to know all your students, consulting with specialties (such as SPLED, OT, PT, etc.), engaging with

students when adapting activities and adapting rules, and instructions and modifying activities to fit all students' abilities. Additionally, this strategy would allow more open discussion about inclusion and build character, empathy, and comfort among all students. Teachers need to overcome these challenges to meet the needs of all students and provide an inclusive physical education program that benefits all children. Teachers' practices relate to inclusive physical education practical strategies that educators are currently using to support children with special needs in inclusive physical education programs. Educators at the forefront of education need to be prepared to challenge the issues of inclusion. "In order for inclusion to be effective, it is generally agreed that the school personnel most responsible for its success relies on the teachers" (Avramidis, Bayliss & Burden, 2000, p. 192).

#### **1.5.4.4 Universal Design for Learning**

Another method to accommodating students called the Universal Design for Learning (UDL) provides a method toward finding that balance (Borosan, 2017). UDL is based on the notion that rather than forcing students into a one-size-fits-all learning style, educators must provide varied and flexible options for learning, along with appropriate supports and accommodation (Borosan). Universal Design for Learning (UDL) is a framework that can be used proactively to help guide practices so that instruction and assessments are presented in ways that permit the widest range of students to access information. The goal of inclusion is to meet students where they are, and as they are, and to lead them to be resourceful, knowledgeable, goal-oriented, and motivated learners. According to UDL's principles, we must incorporate diverse strategies for engagement, representation, action, and expression. Using this model of UDL strategies can help acknowledge differences, differentiate instruction, and guide students to maximize their potential, while still leaving room for students' individuality to shine (Borosan, 2017). Using UDL,

educators can incorporate multiple and flexible means of engagement, representation, and expression in the planning stages of activities and lessons for all students. Then, if additional adaptation is needed, teachers can use Specially Designed Instruction (SDI), which makes specific adjustments based on a student's Individualized Education Program (IEP) to further personalize learning (Center, 2018).

#### **1.5.4.5 Professional Development**

Another way to equip the PE teachers, is to provide professional development (PD) days to get more hands-on opportunities to learn better approaches, barriers in teaching, and modifications in inclusion classroom concepts (Otterloo, 2016). Inclusion as a principle could be achieved if features of the inclusive process such as appropriate support, resources, and/or training were developed and provided for the PE teachers. The PE central website offers onsite and virtual training for PE teachers for any PD workshops (Specialty, 2019). These PD workshops are fun, engaging, and filled with valuable skill building tools such as: how to implement personalized learning and project-based learning into your program; how to use FitnessGram to its fullest; how to integrate literacy and other subjects into PE, and more (Physical, 1996). The implications may include a need to modify existing school-based plans for curriculum delivery perhaps by changing the chosen activity, adapting the activity, or increasing the range of differentiation strategies used within the lesson (Morley, Bailey, Tan, & Cooke, 2005). Continuing professional development was seen by some of the teachers as the key factor to increasing opportunities for pupils with special education needs (SEN), and this reflects earlier research into the development of equitable practices in PE (Morley, Bailey, Tan, & Cooke, 2005). Last, in-service training and continuing professional development opportunities for PE teachers should be subject-specific, department-based, and practically oriented (Morley, Bailey, Tan, & Cooke, 2005).

## 1.6 Summary

Inclusive PE and education promote teaching PE to all individuals, regardless of their abilities. There are national trends suggesting a need to ensure inclusion of students with special needs in high school physical education. Students with special needs tend to have disparate outcomes (Coates & Vickerman, 2008). Trending towards inclusion of students with disabilities means that more students with profound and multiple disabilities would be included in physical education classrooms (Miller, 1993).

The overall history reviewed through this research was Section 504, IDEA, EHA, and ADA which are inclusion policies and practices that impact the PE classroom. The best practices for inclusion in the PE classrooms were Adaptive Physical Education (APE), Comprehensive School Physical Activity Program (CSPAP), and Ecological Task Analytic Teaching (ETAT). Lastly, the best practices to train PE teachers included Differentiating Instruction, Adaptive Physical Education, Talking about Inclusion, Universal Design for Learning, and Professional Development. These policies and practices have impacted our view of the problem of practice and potential evidence-based approaches to integrate inclusion into the PE classroom.

## **2.0 Theory of Improvement and Implementation Plan**

### **2.1 Theory of Improvement and Change**

The problem of practice is students with disabilities are systematically excluded from mainstreamed health and PE classes to the detriment of their health and well-being. Promoting inclusion and exploring the role that it plays in a PE classroom setting includes examining and changing policies and practices, the physical and social environment, as well as personal perceptions, all of which can affect mainstream students' understanding and acceptance of students with disabilities. My theory of improvement (Appendix A. Driver Diagram) incorporates changes to the current school environment that builds inclusion and includes fun activities and programs (during school hours and after school program), as well as community support for all individuals with and without disabilities. Students, regardless of their ability level, should have the right to participate in PE activities in the BPSD. My objective is to promote inclusion of all students, so they have a more active role in PE classes. As a result, I want to expose students with and without disabilities in the PE classroom to a welcoming environment, one which builds character with the support of peers, and encourages wellness and overall health. I will know the change is an improvement when I see students' peer-to-peer interaction, such as, engagement, encouragement, and empathy towards peers. Also, with their participation in physical activity, it is anticipated that students regardless of their ability levels, will improve self-esteem and confidence with the support and encouragement from their peers.

### **2.1.1 AIM Statement**

By the fall of the 2023/2024 school year, students will show significant improvements in social contact and social connection within the physical education classes at Bethel Park High School.

### **2.1.2 Primary Drivers**

There are three primary drivers, which are inclusive PE classes, school culture, and support for the students with disabilities in the PE classroom. The inclusive/ adaptive PE classes are an important component to achieve my aim of increasing the number of general education students enrolled in Partners in PE class, regardless of disability level. The school culture is an important driver to providing a safe, welcoming and inviting environment within the walls of the school. The school culture is created when students learn, grow, and are provided opportunities to develop character and build a supportive environment in the classroom. The third primary driver, support for students with disabilities, includes providing the right resources, support, and modifications for students in and out of the classroom. These key areas must be leveraged to increase enrollment and engagement of the students with disabilities in the PE classroom.

### **2.1.3 Secondary Drivers**

There are various secondary drivers that may impact and support the implementation of this change. There are seven secondary drivers including: curriculum, resources, perceptions of disabilities, empathy and relationship building, community support, administrative support, and

parent/guardian support. The primary driver of inclusive PE can be targeted by modifying or improving the curriculum by including creative unit/lesson plans to accommodate all individuals regardless of their abilities. Resources needed for the lesson/unit plans connect with this secondary driver of curriculum and the primary driver of inclusive PE. This includes having the right equipment for all the activities and lessons to allow every student regardless of their abilities to be able to participate in all PE lessons.

The primary driver of school culture can be targeted by modifying teachers' perceptions of the students' disabilities and increasing students' empathy and relationship building skills. Regardless of students' abilities, perception can change the way one teaches and learns. Teachers' feelings regarding the curriculum, lesson planning and support within the classroom could influence their emotions towards this change. No one likes to change but change from the status quo is necessary in order to address inequities. Engaging in activities to foster empathy and relationship building skills explicitly to students regardless of their disability level will support the primary driver of school culture. The relationship building and empathy are key to changing school culture and achieving the AIM of this problem of practice.

The primary driver of support for students with disabilities can be targeted by increasing support from the community, administration, and families. Community support goes along with my desire to improve the support for students with disabilities within the school walls, as well as community outreach. This will create responsibility and willingness to engage the community and school in exposure of all individuals regardless of ability. Administrative and parent/guardian support go hand and hand with the primary driver support students in PE classroom require regardless of their abilities. Administrative support is what drives our schools. These individuals have the final say on what and how we can best see our students succeed. The characteristics of an



effective school administrator in this situation can help problem solving skills, dedication to students, commitment to faculty and staff, as well as commitment to students and parents. Parents know what is best for their child and understand the school system and needs addressed within the school, as well as advocacy for their child. Working with families will be key to understand how to best educate and incorporate safety in the classroom for all students to participate in PE class.

#### **2.1.4 Change Ideas:**

There are several change ideas I have identified to target the primary and secondary drivers in my overarching aim of increasing inclusion in physical education and engagement of students with disabilities in the physical education (PE) classroom. The change idea of Partners in Physical Education (PPE) targets the driver of inclusive/adaptive PE (APE) class by incorporating general education students to participate and work alongside of their peers within physical education class. The general education students will be invited to participate and volunteer their time in the APE class. The general education students will be selected from study hall, current PE class and/or student government. The entire focus of Partners in PE is to meet the physical education needs of the students with disabilities, and in the process, increase social skills and build relationships with peers.

Another change idea would be to incorporate student support or paraprofessional support during PE class/co-teaching model. These lessons would include physical activities that promote wellness, sports training, team sports, and community recreation. This change idea will provide support for the PE teacher teaching and increase the ratio with students. Students with disabilities may need extra support, such as a paraprofessional within the classroom, to help assist with their

needs. This can result in fewer outbursts and distractions within a classroom and keep all students on task and more engaged throughout the class.

The final change idea would be to create a multiple stakeholder “inclusion” committee that would include parents, teachers, school board members, and administrators. The goal of such a committee is to explore methods of providing quality Inclusive Physical Education to ensure that all students with and without disabilities can experience the mutual benefits of inclusive participation. Students should learn in an environment that meets their abilities and needs, where essential opportunities for social, motivational, and educational interaction with age-appropriate peers can be maximized, all of which Inclusive Physical Education provides.

## **2.2 Systems Measures**

### **2.2.1 Outcome Measures**

The primary outcomes I would assess are social contact and social connection within the physical education courses at Bethel Park High School between the general education and adaptive PE students.

### **2.2.2 Process Measures**

To understand whether the change ideas are being implemented as planned, I would monitor attendance in PE classroom, and solicit parent, student, paraprofessionals and teacher feedback following the program to examine participation in the PE classroom and identify

suggestions for changes. Attendance would be a key process measure to make sure the intervention is being implemented as planned. This would be measured through attendance and meeting minutes, as well as support from Paraprofessionals, PE teacher, and students. The documentation of observations and lesson plans are also part of the process measures. The potential process measure that would help me understand if my change worked is attendance in PE classroom regardless of abilities and character building among peer-to-peer interaction. Also, some of these change ideas include (e.g., lesson plans) and looking at the driver measures (curriculum), as well as, meeting minutes for the inclusion committee and potential training for the paraprofessionals.

### **2.2.3 Driver Measures**

Driver measures could include the level and ability of students within the PE classroom, interaction with PE teacher co-teaching model, as well as peer-to-peer interaction. To assess if trusting relationships are developed, we could assess the student and teacher's perceptions of trust. Finally, identifying the nature of the existing support and program of BPHS Adaptive PE program, as well as the PE program throughout the district, needs to be assessed during the intervention to see if we are supporting all needs of the students to their best abilities.

### **2.2.4 Balance Measures**

To meet the aim statement, there are many possibilities for imbalances throughout this system. Resources will be needed to implement each of the change of ideas. Teachers and students volunteering their time to implement these change ideas could experience stress or burnout, which could take a toll on their mental, emotional, and physical state. Also, the PE teacher leading the

PPE program may not be able to balance the responsibilities in addition to their other responsibilities, may get a substitute to cover for them, potentially taking away from the quality and consistency of the program.

### **2.2.5 Inquiry Questions**

The following inquiry questions will guide the project:

1. What are the experiences and perspectives of the Partners after participating in the PPE program?
2. What is the experience of the Adapted Physical Education teacher and paraprofessionals regarding implementation and perceived outcomes of the PPE program?

### **2.2.6 Intervention Description**

Inclusion in the health and physical education (PE) classroom is the change idea I implemented for this initial Plan, Do, Study, Act (PDSA) cycle. The PPE program took place within the Bethel Park School District at the high school level. The existing Adapted Physical Education (APE) class has 10 students in 9<sup>th</sup> – 12<sup>th</sup> grade and meets five times a week. The course is led by the APE teacher and included 3 paraprofessionals. The Partners in PE (PPE) program was integrated into the existing APE class by including 4, 10-12<sup>th</sup> grade general education students for 2 weeks (3, 41-minute PE classes total). The PPE program was supposed to consist of four separate sessions (Appendix D); however, only three sessions were implemented due to absence of the APE teacher.

Within the PPE program, the students with disabilities were called “Athletes” and students without disabilities were known as the “Partners.” All students participated in physical activities, team sports, motor skills and life skills while working with their peers within the PE classroom. The PPE program allowed students with disabilities to have individualized instruction through the verbal and physical prompting of their Partner. The Partners had the opportunity for hands-on experience throughout the class, such as developing skills and knowledge that promoted wellness, sports training, empathy, and physical activities for individuals of all ability levels.

Ahead of the program, the primary investigator met with the APE teacher to observe her class and the APE students. After this initial observation, the investigator designed lessons that fit into the existing APE class and provided the teacher with range of activities to modify if needed during the three lessons. The three lessons were built around peer-to-peer interaction and social engagement for all students to engaged in physical activity within the 40-minute class. The APE did not receive any additional training from the primary investigator ahead of time. Each lesson was created using the existing APE class structure, with a warmup of stretches (led by the Athletes) then into dance songs. After the warm-up and dances were complete, the APE teacher introduced the lesson’s theme and main activity and paired the Athletes with the Partners. During most of the lessons, each Athlete was paired with a new Partner; depending on class size, sometimes two Athletes were paired with one Partner. Athletes and Partners rotated to different stations together. Modified PE equipment was provided as options for all individuals to promote participation and safety. The PE equipment included seasonal sport equipment, balls, space in the gym and modification of equipment.

Partners were identified with assistance from guidance counselors that included students who had study hall or were enrolled in another physical education class during this APE class

period. The guidance counselors tried to find a variety of students (gender, age, grade level) willing to volunteer their time for these three class periods. The students who were willing to volunteer their time had the incentive of receiving community service hours. The Partners had to apply to participate in the PPE program by writing an essay (See Appendix B) and answer the following prompts: 1) communicate why they want to be a part of PPE; 2) describe whether they have worked with students with disabilities in the past, and 3) describe character traits they possess that would make them great Partners. The guidance counselors selected the 6 partners and chose these students by their schedule (study hall and/or another PE class) during same APE class period. The selected Partners received the PPE course application and description of what to expect and provided for signatures of both Partners and parents for consent (See Appendix B). Once they were recruited, they had to attend an orientation held over one, 41-minute class period where I reviewed the content and idea behind PPE (See Appendix C).

## **2.3 Methods and Measures**

### **2.3.1 Participants**

This study was held within the South Hills of Pittsburgh in Bethel Park, PA at the Bethel Park High School (9-12<sup>th</sup> grades) within the community of Bethel Park. Ten adaptive physical education students, six general education students, three paraprofessionals, and one physical education teacher participated in the inquiry project. These ten Athletes are subset of special education students within the BPHS attending the APE class. Six general education students in grades 10<sup>th</sup>-12<sup>th</sup> were selected by the guidance counselors and APE teacher to participate in the

PPE program. Parents and guardians of selected general education students were sent a letter asking if they preferred their child to opt-out of participating in the research portion of the study (See Appendix B). If they did not wish to be a part of this study, they needed to contact the investigator directly. Parents of both Partners and Athletes received information of what Partners in PE expectations would be in the PE classroom (See Appendix C). This allowed selected student Partners to participate in the APE class even if they did not wish to be part of the research. The Institutional Review Board determined that the proposed activity did not meet the definition of research as defined by the Department of Health and Human Services and Food and Drug Administration regulations.

## **2.3.2 Measures**

### **2.3.2.1 Partners Focus Group**

At the end of the Partners in PE program (PPE), Partners reflected on what they learned and were able to take away from experience through a focus group. This focus group followed a semi-structured discussion guide (See Appendix E). The discussion guide included seven open-ended questions asking the students about their experiences and perspectives with the PPE program. These interviews lasted 40 minutes and were audio recorded and transcribed verbatim. The interviews took place during the school day during the normal APE class period in a private classroom.

### **2.3.2.2 PE Teacher Interview**

At the end of the PPE program, I conducted a one-on-one interview with the APE teacher which provided a deeper insight into the effects of the program from the teacher's perspective.

This interview followed a semi-structured guide (See Appendix F). The interview collected formative feedback and observations about the lesson and its impact on the students (Partners and Athletes), as well as recommendations for future lessons and activities within the PPE program.

### **2.3.2.3 Paraprofessional Survey**

Feedback from the three paraprofessionals was also solicited through 6 open-ended questions via Google form (Appendix G). Sample questions included: “How did you think the implementation of the PPE class went?” and “How was the behavior of your student(s) (Athletes) after class and throughout the rest of the day?” Responses were included into the field notes as feedback from their own experience and the Athletes they work with in the PPE program.

### **2.3.2.4 Observations and Field Notes**

Observations took place throughout the intervention period to note additional insight into the experience of implementing the PPE program. The observations of students with and without disabilities examined participation, engagement, encouragement, and improvement with physical activity over the time. Any comments or input from teachers, staff, faculty, and students were recorded as deidentified field notes by the investigator. The field notes included general reflections regarding the program and curriculum, including what went well, and ideas for future implementation.

### **2.3.2.5 Data Collection Procedures**

The timing of the interview data collection with student Partners and the PE teacher took place in the final week (week 4) following implementation of the program. Observations took place throughout the intervention period and field notes were collected.



### 2.3.2.6 Data Analysis

Focus group with Partners and PE teacher were audio recorded and transcribed using google transcription. I verified the original transcripts against the audio files and corrected any errors in the transcription. The transcripts and field notes were then coded with using content analysis methods (Erlingsson & Brysiewicz, 2017). Qualitative analysis began with coding meaning “chunks,” then categorizing the codes based on patterns in the data. This process revealed connections and relationships to what was coded to identify patterns.

### 2.3.2.7 PDSA (Plan, Do, Study, Act) Timeline

The table below demonstrates the plan to implement the PPE program into Bethel Park High School during the 2021-2022 school year.

## TIMELINE: Improvement of Inclusive Physical Education

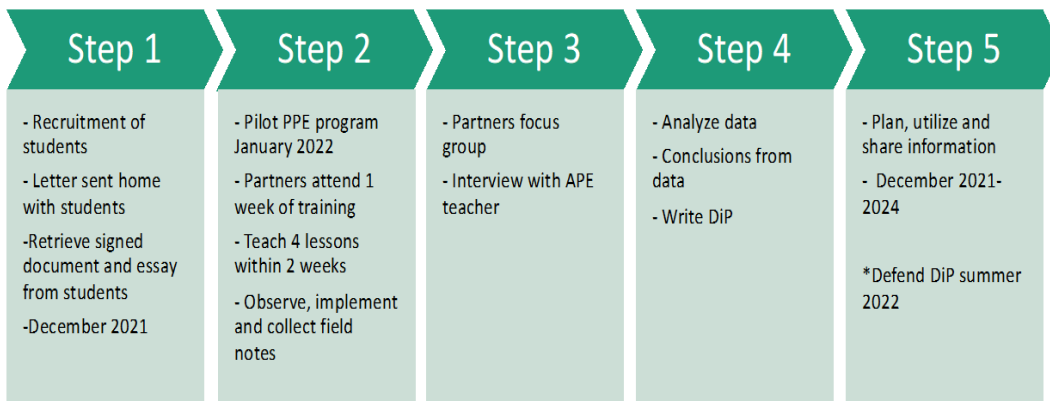


Figure 1 Timeline: Improvement of Inclusive Physical Education

## **3.0 PDSA Results**

### **3.1 Results**

#### **3.1.1 Sample Characteristics**

Fourteen students, 4 Partners, and 10 Athletes, participated in the PPE program. Originally, six students were selected as Partners, five were trained, but only 4 participated during the sessions due to COVID cases. Three Partners completed the focus group discussion. In first session of PPE, only five Athletes participated in class due to COVID cases. For the second and third sessions, all 10 athletes and four Partners attended. Throughout the three PPE program sessions, all three paraprofessionals were present, and the PE teacher was absent one day.

Three Partners were males, and one was female. Two partners were sophomores, one was a junior, and one was a senior. Of the Athletes, there were 4 males and 6 females participating in class. The adaptive PE teacher (APE) was a female and has been teaching for almost 30 years. All three paraprofessionals were females and worked with the special education students in the school district.

#### **3.1.2 Qualitative Data Analysis Results**

Results of qualitative analysis of field notes and interview/focus groups transcripts revealed 3 overarching themes surrounding the students, teacher, and paraprofessionals' experience with the PPE program: (1) Overcoming obstacles to become friends; (2) Positive experiences in the

program; and (3) Recommendations for a future PPE program (**Table 1**). Additional description of these themes is provided in the following sections, including representative quotes within each theme.

### **3.2 Theme 1: Overcoming Obstacles to Become Friends**

The core categories in this theme included challenges, Partner benefits, and relationship building. Collectively, these categories highlighted the Partners' transition from challenges faced due to a lack of awareness and previous interactions with the Athletes, to getting outside of their comfort zones through the program and building relationships and friendships.

#### **3.2.1 Challenges**

In the focus group, Partners discussed the difficulties and barriers they faced engaging in the PPE classroom. The most prominent theme during discussions with the participants surrounding PPE program implementation was the mention of factors beyond the PPE program and ways both Athletes and Partners were affected by their participation in the program. Partners discussed challenges faced in the program, including having little to no previous experience working with or exposure to their peers with unique needs. In the Partner focus group, participants mentioned their experiences within the PPE program, for example:

Partner 3: "I never really had previous experience working with special needs kids."

Partners also felt Athletes were in “segregated classrooms,” which limited their interactions during the school day. Another challenge was that some of the Athletes were lower functioning and non-verbal, which made communicating difficult. Overall, the partners noted that their lack of experience did not prepare them for the PPE program, and their lack of ability to communicate was a barrier.

### **3.2.1.1 Partner Benefits**

Paraprofessionals also mentioned benefits of having Partners within the classroom.

Through their participation in the program, Partners were forced to get “out of their comfort zone,” meaning that they had to try something new and interact with other students they might not on a regular basis. Partners also increased their awareness of the Athletes, their interests, and their lived experiences. Partners shared their growing awareness of the Athletes and even noted how they interacted with one another was similar to how they interacted with their own friends. Below, two Partners discussed how this growing awareness impacted them:

Partner 1: "I think ... getting to see ...how they interact with each other, and ...how they have bonds and how they'll...have like, little like gestures and stuff that ... they'll do to specifically to one another, ... that's something that I ... never really seen before."

Partner 2: “And it was good to see, like, what their daily lives were like, and how it how school was like for them.”

Another Partner described their experience of stepping out of their comfort zone:

Partner 1: “I agree with the dancing part, it, it kind of makes you and forces you to be out of your comfort zone. But once like your kind of acclimated like, you kind of do get

into it, and you do kind of you do really have, like, fun that you didn't think you could have. And, I don't know, it's kind of, I feel like that's kind of really what it was a lot of it was about was getting out of your comfort zone.”

### **3.2.1.2 Relationship Building**

A third factor that the participants identified was a budding friendship between the Athletes and Partners. Despite challenges faced, the focus group discussions revealed that partners overcame barriers, reaped personal benefits, and fostered a meaningful relationship with the Athletes. Over the brief intervention, Partners became more comfortable with the Athletes and in their interactions with them. They stated that participating in the PPE classroom prepared them to build on their relationship both in the classroom and throughout the school day:

Partner 3: “Mostly, our classes are separated but while working at the Bean and Barry [school store where they sell beverages and snacks], [the Athlete] was in his in the classroom adjacent to it. So, I got to say hi to him. And you know, he reciprocated and just had a quick little interaction. Because, you know, we got to know each other over the course of the four classes.”

Partner 2: “I've seen them a few times, in the hallways almost every day. And I always say hi to them, and they seem to remember who I am. And they I really think that I'm helping them to feel comfortable in their school. And it's just nice to be able to talk to them and for them to know that they have a lot of people that they can talk to.”

Partner 2: “I really enjoyed partner in PE because I got to build relationships with kids with special needs.”

### **3.3 Theme 2: Positive Experiences in the Program**

A second theme was related to positive experience in the program. The core categories in this theme included benefits to the Athletes, and Partners' positive PPE experience and enjoyment of the program. Collectively, these categories highlighted the positive experience this program brought to the Partners, the Athletes, and the PE teacher. There was overwhelmingly positive feedback for the benefits of the program to the Athletes, Athletes and Partners participation and all the student's excitement and energy during class their experience with the PPE program.

#### **3.3.1 Athletes' Benefits**

All participants described the beneficial effect the PPE program had on the Athletes. For example, the PE Teacher noted the beneficial relationship between the Partners and the Athletes:

APE Teacher: "They [the Partners] could be role models for these kids [the Athletes]. And they [the Athletes] really look up to them."

Another Partner talked about how their experience was as a partner in PE highlights and how they enjoyed working with the athletes:

Partner 2: "And I had a good time helping them enjoy their gym class, and I had a good time making new friends having someone to talk to. And I really enjoyed the activities that we took part in, I really thought that they helped a special needs kid be able to experience more things like everyone else."

Paraprofessionals were also quick to share their perceptions of the PPE program benefits to “their students” (i.e., the Athletes). They noticed that with the Partners being included into the Athlete’s existing physical education classroom, it made the Athletes to try harder. They also noted Athletes’ increased engagement in class and enjoyment interacting with the Partners:

PARA 1: “The special education students were very enthused, excited, and upbeat. The special ed students watched the physical education students very closely, wanting to mimic them, and try to out play them. Some of the Spec Ed students put on quite a show. The physical education (Partners) students were amazing at the talent they displayed at including the special ed students into the game, making sure everyone had a chance to participate and were very patient and understanding.”

PARA 3: “Our students enjoy interacting with other students just like most of them do in the Best Buddies program. I like seeing our students have a chance to interact with students other than their immediate circle. I enjoyed watching them ‘teach’ the partners how to do their warmup dances.”

### **3.3.2 Positive Experience and Enjoyment**

The Partners noted it was rewarding to work with Athletes and built confidence working with their peers, as well as an overall positive experience participating in PPE program. Every Partner expressed their enjoyment of getting to know the Athletes and participate in class with other Partners. The positive experience the Partners and APE teacher had was the reward of working with Athletes increased confidence in themselves to be able to work with students, such as the Athletes.

Partner 2: “And I had a good time helping them enjoy their gym class, and I had a good time making new friends having someone to talk to. And I really enjoyed the activities that we took part in, I really thought that they helped a special needs kid be able to experience more things like everyone else.”

Partner 3: “So, getting the experience to interact with them was great.

Partner 4: “I enjoyed working with special needs kids and watching them have fun, as well as participate and communicate with others. It was a good experience!”

### **3.4 Theme 3: Recommendations for the Future PPE Program**

The third theme had to do with recommendations for the future PPE program. In focus group interviews with Partners, the individual interview with the APE teacher, and the survey with the paraprofessionals, participants shared their recommendations for a future PPE program to improve upon the existing program. The core categories in this theme included recommendations for partner training, PPE program implementation, and class structure. Participants, teachers, and paraprofessionals expressed that maintaining this PPE program and positive experiences gained would be beneficial for all involved.

#### **3.4.1 Partner Training**

The partners requested receiving more training prior to the PPE program, including more time introducing the PPE program, exploring what to expect as Partners, and receiving more support and training experiences before PPE implementation. One of the partners mentioned how



it would be a great opportunity to meet with the Athletes, teacher, and paraprofessionals prior to start of the PPE program to become more familiarized and comfortable. For example, one partner suggested:

Partner 1: “And I guess a little bit more like kind of guided by the instructor, rather than like, just kind of, you know, this is the expectations and kind of let loose on the gym. You know, just kind of giving them directions that is a little bit more like freeform and like organic.”

One of the partners expressed their enjoyment and enthusiasm to participate with their peers (Athletes) and how the partner training helped them and below mentioned their previous experience working with individuals with disabilities:

Partner 3: “Before our training, we went through a PowerPoint on how they would act. And whether we should be touchy or loud or quiet, depending on what condition they have.”

### **3.4.2 PPE Program Implementation**

Participants provided feedback specific to the PPE program implementation. Specifically, they stated several times that it would have been great if this was offered and given longer a time frame each year, beyond the 3 sessions. They recommended the class being offered for next year for a semester or as a full year class elective for students to choose.

PARA 2: “I think it would be a good program if it was implemented by the school district. I think it would be beneficial to both sets of students.”

PARA 1: “I would love to see a physical education class structured after this pilot program to begin in our high school. “

Partner 2: “I think it would be cool if you could take an elective course for partners in PE that would last maybe even a whole semester... “

### **3.4.3 Class structure**

The Partners and APE teacher provided feedback on the class structure to allow for more effective implementation of the future PPE class. The APE teacher provided the recommendation of creating multiple sections of the class that would be tailored to the Athletes’ ability level and other suggestions to the PPE future program at Bethel Park High School. In this way, Athletes would be able to work with their peers (Partners) with more interaction and connecting with their peers.

APE teacher: “I would like to have maybe a smaller class, maybe just have, or group them if you can, because we have the high energy students that want to spring up on the floor. And then we have a low energy student that can't split up and choose to sit on the floor. If we were able to divide the ability levels in half, I think it'd be a little bit better.”

**Table 1. Emergent Themes, Core Categories and Descriptions Resulting from the Qualitative Data Analysis**

Themes	Core Categories	Category Descriptions
<p><b>Theme 1:</b>  <b>Overcoming obstacles to become friends</b></p>	<p>Challenges, Partner Benefits, and Relationship Building</p>	<ul style="list-style-type: none"> <li>• Obstacles face by Partners of PPE program</li> <li>• Building awareness of Athletes and getting Partners out of their comfort zones</li> <li>• Rapport relations between Athletes and Partners in PPE program</li> </ul>
<p><b>Theme 2:</b>  <b>Positive experiences in the program</b></p>	<p>Athlete Benefits and Positive Experiences/Enjoyment</p>	<ul style="list-style-type: none"> <li>• Benefits of the program to the Athletes</li> <li>• Student participation</li> <li>• Student excitement, and energy during class</li> </ul>
<p><b>Theme 3:</b>  <b>Recommendations for future PPE program</b></p>	<p>Partners Training, PPE Program Implementation and Class structure</p>	<ul style="list-style-type: none"> <li>• Suggested changes to Partner training</li> <li>• Sustainability of the PPE program</li> <li>• Class structure for more effective implementation</li> </ul>

## **4.0 Learning & Actions**

### **4.1 Discussion**

The aim of my theory of improvement is “By fall of the 2023-2024 school year, significant improvements would be shown in social contact and social connection within the physical education classes at Bethel Park High School.” The implemented change effort aimed to foster improvements in social contact and social connection at Bethel Park High School by advancing the course catalog for students to select and participate with other peers (Athletes) in a PE classroom. The goal of the PPE program was to promote peer-to-peer interaction, inclusion, and engagement among all students, regardless of their abilities, in the PE classroom. Results of the data collected from the field notes, focus group interview, APE teacher interview, and paraprofessional feedback, revealed important insights for the inquiry. Several key findings emerged from the results. The following sections will discuss the key findings and their implications for practice and next steps going forward.

#### **4.1.1 Key Findings**

##### **4.1.1.1 Key Finding 1: The Lack of Experience, Exposure, and Training of the Partners and APE Teacher Presented Challenges to Program Implementation.**

One key finding from the current inquiry was that the partners felt unprepared with their lack of experience with Athletes and students with disabilities in general, as well as the unpredictable behaviors from the Athletes that occurred during the lessons. The partners received

a one-day introduction prep course of what to expect in the PPE classroom and program design and goals. This training provided the Partners with the layout of the program and class schedule, anticipated number of Athletes, and a few definitions and examples of disabilities the Partners might encounter with the Athletes. Also, we discussed the lessons that would be incorporated into the PPE program. During the introduction session, the majority of the Partners were quiet and seemed to be taking everything in that was being discussed. Of the six Partners chosen for this program, only five attended the training and only one had previous experience working with students with disabilities. The four other students did not have any experience prior to the PPE program working with students with disabilities. Feedback through the focus group revealed that the training was inadequate to prepare their comfort levels for them to engage Athletes in the PPE program.

Part of this lack of experience and awareness stemmed from the perception that the students with disabilities were “segregated” from the general education students. While current research indicates inclusive experiences are a critical predictor of positive outcomes in and out of school, restrictive placements of students with disabilities are still occurring (Kurth, Morningstar, and Kozleski, 2014). Complete exclusion is when a student with a disability is segregated from their peers (Tripp, Rizzo and Webbert, 2007). Segregated physical education classes can increase anxiety, irritability, nervousness, and may threaten students’ (Athletes) mental health (Bodnar & Prystupa, 2015). Functional exclusion occurs when physical educators include a student with a disability in the physical education class, but the student does not meaningfully participate in an instructional program with his or her peers (Tripp, Rizzo and Webbert, 2007). Full inclusion means everyone belongs in a school that is a “community” of learners. Integrated physical education classes are shown to be a more progressive and effective form of physical education in terms of

their beneficial effect upon the physical and mental development of children with disabilities (Bodnar & Prystupa, 2015).

The Partners were educated regarding several different types of disabilities and given suggestions to encourage positive cues when interacting with their Athletes. My observations of the program documented several unexpected behaviors from the Athletes and discomfort from the Partners, thereby prompting the APE teacher and paraprofessionals to intervene when needed throughout the lessons. Inclusion in physical education honors all kinds of student diversity (not just disability) as an opportunity for learning about how everyone can become physically active through a variety of movement and fitness activities (Tripp, Rizzo, and Webbert, 2007). Additional training for the partners could have anticipated some of this discomfort and prepared them with skills for how to interact with the Athletes.

The PE teacher in the current study had been teaching this APE class for the last 2 years and noted her lack of previous experience working with students with disabilities. Tripp and colleagues (2004) concluded that PE teachers should receive direct training on adapted PE and ways to support inclusion of students with and without disabilities in the same classroom. For the future and those APE teachers teaching this course, there should be additional training which would incorporate and enhance more experience with students and disabilities, as well as, the development of training lessons and equipment on knowledge to approach each lesson. The APE teacher was able to modify equipment and lessons to reach all students regardless of abilities, and model communication and respect to encourage peer-to-peer interaction. The lessons were also more focused on physical and social approaches to use peer-to-peer cues and interaction bringing forth engagement and encouragement among all students. Curricular practices which foster inclusive education include community building and teaching student responsibilities (Tripp,

Rizzo, & Webbert, 2007). For the inclusive environment of PE, teachers must change the culture of the community to support all students to lead in a healthy and active lifestyle throughout their lives (Tripp, Rizzo, & Webbert, 2007).

#### **4.1.1.2 Key Finding 2: Peer-to-Peer Inclusive PE Program can Build Relationships and Reap Benefits for All Involved.**

A second key finding of the current inquiry is that though the Partners and APE teacher faced challenges with program implementation, the PPE program fostered relationships and enjoyment, as well as increased student engagement during the PE class. Overall, findings suggest that students with and without disabilities (Athletes and Partners) exhibited positive attitudes and behaviors towards one another within the PPE classroom setting.

Inclusion is not just putting all students into a classroom regardless of their abilities, but that all the students are engaging in a meaningful activity together, sharing equal status and learning together (Tripp, Piletic, & Babcock, 2004). Students should learn in an environment that meets their abilities and needs, as well as maximizes the essential opportunities for social, motivational, and educational interaction within age-appropriate peer groups, all of which inclusive PE provides. When activities have an academic focus and students with disabilities (Athletes) are properly supported, they participate more on equal terms with their classmates (Partners) (Bertills, Granlund and Augustine, 2019). There is further evidence that inclusive PE has a positive effect on students with disabilities' assertiveness, cooperation, communication, self-control, and coping and problem-solving skills (Opstoel, Chapelle, Prins, DeMeester, Haerens, Tartwijk and DeMartelaer, 2020). It is so important and beneficial for students with and without disabilities to be provided opportunities to interact with each other in both classroom and community settings.

Due to research on the benefits of peer modeling and interaction for students with and without disabilities, school systems are searching for ways to allow their students with disabilities to experience inclusion (Shippy, 2015). Despite the short amount of time allowed to implement this program, it was found that both set of students (Athletes and Partners) demonstrated high engagement and the positive environment for both set of students encouraged their involvement. By providing the additional support to the APE teacher in the form of the Partners, the Athlete's physical activity motivation and increased participation and effort was enhanced. The learning outcomes for the Athletes revealed their confidence and enthusiasm increased to participate with their peers (Partners).

Partners in Physical Education (PPE) can have a significant impact and connection between physical education (PE) class and social learning. This program can build upon and foster friendships among Partners and Athletes both in the PE classroom, as well as, outside the classroom and community. Students with disabilities (Athletes) gain valuable social skills when working and playing in the general physical education environment (Specialty, 2019). On the other hand, Partners gained understanding and knowledge on inclusion and exposure to peers that might not be available in their other classes throughout the day. Inclusion in PE honors diversity, not just disability, as an opportunity for learning about how everyone can become physically active through a variety of movement and fitness activities (Tripp, Rizzo, & Webbert, 2007). Inclusive schools provide the opportunity for all students to develop attitudes, values, and skills needed to live and work alongside others in a diverse society (Center, 2018). Exposing the students (Partners and Athletes) to the PPE program can help them experience these benefits not only for their physical well-being but mental and social skills as well. Providing a space for all students to feel included and welcomed allows the students to participate and engage. Peer support (Partners) and



interaction can have a significant, positive impact on the lives of individuals with disabilities (Carter & Hughes, 2005). However, in order for these significant effects to occur, more social interactions between the Partners and Athletes needs to occur.

#### **4.1.2 Strengths and Weaknesses**

There were clear strengths and weakness regarding the change (i.e., PPE program) and overall process. Strengths included the availability of the APE teacher and willingness to step outside her comfort zone to include more students into her classroom and teach PPE lessons. Another strength was the Partners selected for this program were willing to volunteer their time and were challenged to work with peers they may not have known or been comfortable interacting with prior. Lastly, the support and buy-in from the PE teacher, paraprofessionals and students contributed to the successful intervention, as well as administrative support to implement this change. Another strength was that the Athletes were able to remember after the first lesson and class their Partners names and whom they participated and worked with throughout the class. This is extremely meaningful to state their cognitive ability to remember their Partners names. The data gathered from the APE teacher, paraprofessionals and Partners clearly showed the positive impact of this course and laid the groundwork and rationale to incorporate more inclusion PE classes at Bethel Park High School.

The challenges faced while implementing the PPE program were related to the significant rise of COVID cases, the absence of the PE teacher for a lesson, and timing of the PPE program. Unfortunately, due to the rise in COVID cases, the number of Partners who participated dropped from 6 to 4. There were also numerous absences from the class, including the Athletes in the first session and the APE teacher herself for one session. The number of Athletes missing throughout

the three class sessions impacted the ratio to Partners and opportunity for more experience with all the Athletes. Another challenge was that training began in December and continued after the Winter break. This resulted in a significant gap between the Partners' training and the PPE program implementation, as well as the lack of time to orient the Partners to everyone involved in this program (i.e., APE teacher, Athletes, paraprofessionals). The challenge of the short training was mentioned both by the Partners and the APE teacher in hope that more time may be provided in the future to share what to expect in the PPE classroom, background knowledge on individuals with disabilities, and strategies to communicate and work with the Athletes. Overall, this implementation of the PPE program had positive outcomes from all individuals involved, as well as, benefits for partners and athletes. The characteristics of the Partners to be vulnerably social within the PPE classroom with their peers, Athletes, could be a positive and/or negative impact on these students depending on their ability to step outside their comfort zone. The PPE class can provide students (Partners) the benefits of working with their peers with disabilities (Athletes) for potential interest outside of high school.

## **4.2 Implications for Education and Practice**

### **4.2.1 Bethel Park High School**

The next steps for the PPE class at Bethel Park High School to sustain the change would be to create the course description and offer this course to students regularly as an elective. The counselors would be the staff members to present the students with this course elective when scheduling their courses. If BPHS included PPE as an elective class and added it to the master

course schedule, this could not only improve all students' overall credits and building the PE program and department, but also increase engagement and inclusion of students with disabilities into the school. For the future of BPHS, another goal would be to see more integration of all students included into the general education classrooms beyond PE. The barriers for this would be meeting all the needs for students with and without disabilities.

Another implication is to improve the PPE training, especially for the student Partners. This would prepare the students and faculty to feel even more comfortable when stepping into the PPE classroom. Additional training components could include relationship building between the Partners and the Athletes, APE teacher, and paraprofessionals. Other training topics may include using "people first" language, to teach about the disabilities of the Athletes, and rules and instructions on adapted/modified activities. Ideally, the Partner training would be longer than just a day and incorporate at least two weeks to prepare the Partners for the PPE program and what to expect. Fostering more peer-to-peer interaction with Athletes and Partners would allow the students to become more engaged, potentially empower them to spark change in the school.

Another step would be to professional development (PD) for the PE teachers, other teachers, and paraprofessionals. This PD could increase teacher and staff buy-in and familiarity with the PPE lessons. Ideally, this could foster better collaboration between the PE teacher and SPLED team in order to meet the needs of all students. An APE teacher training could specifically focus on skills and tips to help them be comfortable with the material, lessons, and students. This training would provide a variety of different effective strategies for the APE teacher to use to aid the Athletes and help with successful inclusion (Walsh, 2018). The BPHS teacher has only taught students with disabilities for the past two years.

Teaching strategies are imperative to have a successful inclusion classroom. For physical education to be truly inclusive, teachers must look beyond the common perception of disability and think about physical education as a diverse community of learners with various skill levels (Tripp, Rizzo, & Webbert, 2007). Physical educators must also look beyond individual achievement to include group-performance assessment and look at the success of the whole class (Tripp, Rizzo, & Webbert, 2007). Providing this training and preparation for all individuals involved will bring to light the importance of integrated PE classes and enhance progressive and effective forms of physical activity both socially and cognitively for all students. Challenges to implement these additional change ideas at BPHS would be the time and coordination needed to integrate longer trainings for the Partners, teachers, and staff.

Increased student engagement and feedback is also needed for the future of this program at BPHS. It would be helpful to get more feedback from the Athletes on the program and what they would like to see incorporated. Engaging the students without disabilities (Partners) to be more involved in the program design and implementation is a goal that I hope to incorporate in the future. PE students who desire to work with students with disabilities (Athletes) would have the opportunity to earn PE credit by being a Partner in PPE. Partners could create a lesson as a project for the PPE class where they will involve all students (Partners and Athletes) within their lesson teaching on a PE topic. Through the process, the Partners will build closer relationships with the Athletes and likely interact more with them outside of the PPE classroom. While students with disabilities (Athletes) benefit from peer interactions in many ways, Athletes are not the only ones who receive life-changing benefits. Students without disabilities (Partners) also benefit highly from interacting and working with Athletes. Peer supports can be one of the most powerful resources for helping individuals with disabilities to be successful (Riester-Wood, 2015). Peer-to-

peer interaction helps all students regardless of their abilities to become more interactive, interested, and discover they are more similar than different. Therefore, peers who do not have a disability (Partners) quickly learn to understand and accept individual differences when included with peers who have disabilities (Athletes) (Block, 1994).

#### **4.2.2 PPE Programs in Other High Schools**

The purpose of this study was to increase peer-to-peer engagement, inclusion, and physical activity within in the high school students within the PE classroom. Having the APE teacher buy-in, as well as administrative support was vital to the success of the intervention. Offering PPE class as an elective course in other high schools will build school support to enhance the peer-to-peer interaction among all students. Such an approach would improve the school environment as it relates to inclusion, social contact, and social connection in high school students. The PPE program provides a space for both Partners and Athletes, encourages the ability to grow, highlights this experience and allows them to overcome barriers. The APE teacher needs to be conscious of Athlete's and Partner needs and consider multiple ways of modifying and instructing and activities (Sherrill, Heikanaro-Johansson, 1994). For the inclusive environment of PE, teachers must change the culture of the community to support all students to lead in a healthy and active lifestyle throughout their lives (Tripp, Rizzo, & Webbert, 2007). Similar to our program, the potential for benefits of implementing this PPE program in schools and the school environment could occur in just a few short sessions. However, modifications to existing school-based plans for curriculum delivery would likely be necessary in order to change the chosen activity, adapt the activity, or increase the range of differentiation strategies used within the lesson (Morley, Bailey, Tan, & Cooke, 2005).

The PPE class can be a great opportunity for students who enjoy or even desire to pursue a career working with students with disabilities. Changing the physical education culture in order to create an inclusive environment for all students involves rethinking taken-for-granted ideas about how physical education is organized, how students are grouped, how resources are utilized, how decisions are made, and what constitutes appropriate or meaningful physical education (Tripp, Rizzo, & Webbert, 2007). Partners in PE could facilitate and promote opportunities for students to work with their peers with disabilities and lay the groundwork for pursuing career paths in this area. A recommendation could be to incorporate more interaction and peer-to-peer learning opportunities during the school day. The PE teacher is a great resource to work with the Special Education (SPLED) teachers within the district and provide more collaboration in creating and building this course in order to meet all student's needs. This class could provide hands-on learning experiences, connections with other peers, enhance the curriculum, increase awareness and knowledge, and promote relationships with peers that could benefit students for the rest of their lives. Developing and implementing a PPE course will successfully assist in sustaining the inclusion environment within the school district and peer-to-peer interaction.

#### **4.2.3 Implications for Research/Policy**

##### **4.2.3.1 Implications for Research**

To benefit from the practice of inclusion, the PPE programming needs to be inclusive for all students. The PE teacher only asked Athletes for their feedback on the program for one out of the three sessions. Building on this study, I would elect to have more time at the end of each lesson to check-in with the Athletes and gather their perspectives on the program and their Partners. Such data could provide compelling evidence to promote inclusion outside of the PE classroom and

event eliminate segregated classes of students with disabilities, when possible. Other outcomes to measure would be the students' physical activity levels, health, and fitness before and after the program. Although there have been several studies on student outcomes in an inclusionary PE program, rarely does it focus on the experiences and perspectives of students with disabilities (Athletes) (Blinde & McCallister, 1998). In general, more studies among students with and without disabilities between their interaction, attitudes, and behaviors within the Physical Education classroom should be conducted (Sherrill, Heikanaro-Johansson, 1994).

If more of these PPE programs were offered, it would be interesting to explore how the quality of the APE teacher impacts the program outcomes. It is possible that those teachers with credentials, including the completion of pedagogy courses directed towards students with special needs, may foster a more successful APE environment. Well-trained teachers may include successful teaching strategies: 1) working one-on-one with students; 2) promoting active participation and collaboration among all students; 3) following a similar classroom structure each day; and 4) collaborating with fellow faculty several times a week to brainstorm new strategies (Walsh, 2018).

Another perspective missing from this implementation, would be the feedback and support from the Life Skills, Autistic Support, Special education and learning support (SPLLED) teachers that work with the Athletes. The SPLLED teachers work more closely with the Athletes and building a rapport with this department could be more beneficial in the future. Such data would be essential to designing and implementing a successful PPE program. School staff members need to support each other as a team in order to achieve meaningful outcomes for their students (Kowalski, Lieberman, & Daggett, 2006). Having the APE teacher collaborating with the Special Education

department (SPLED) would be extremely helpful when planning lessons and activities to meet the needs of each student.

#### **4.2.3.2 Implications for Policy**

Physical education has benefits for all students, including those with disabilities, as it supports the development of three critical learning areas: cognitive, psychomotor, and affective (Klein & Hollingshead, 2014). Schools are required to have adequate policies and practices that align with the federal policies for inclusion (CDC, 2020). The Centers for Disease Control and Prevention (2020) stated in their policy on how to create an inclusive Comprehensive School Physical Activity Program (CSPAP) as well as training recommended within the school districts and staff which would ensure that physical activity opportunities are accessible and inclusive throughout a school day. Most school districts are required to meet the physical education needs of students with disabilities (Athletes) through accommodations in PE such as, Section 504 plans and IEPs (CDC, 2016). Schools require adequate policies and practices that align with federal policies for inclusion, such as, Americans with Disabilities Act (ADA) and Individuals with Disabilities Education Act (IDEA).

The findings from this initial PDSA cycle implicate that school policies should provide more peer-to-peer interaction, integration of all students, and enhancing physical activity with all students regardless of their abilities. Research has demonstrated that when students with disabilities receive supportive interactions from peers who provide encouragement and assistance with involvement in activities, the likelihood of them having positive and successful participation in PE is enhanced (Healy, Msetfi, and Gallagher 2013). In the current school setting, the APE class was held in a separate gymnasium than the general PE class; as such, it still appeared as though students were excluded. During the focus group feedback from the Partners, each one stated they



felt like the Athletes were segregated and did not see them much throughout their school days. This continues to lead to questions of where students with disabilities are located in the school and how to provide more opportunities for peer-to-peer interaction throughout the school day. As we saw in the current study, students with disabilities enjoyed skillful participation in front of developing peers (Goodwin and Watkinson, 2000). The opportunity to participate meaningfully and competently contributed to positive experiences in physical education (Goodwin and Watkinson, 2000).

Inclusion or inclusive physical education is when, “All children, regardless of ability or disability, have the right to be respected and appreciated as valuable members of the school community, fully participate in all school activities, and interact with peers of all ability levels with opportunities to develop friendships” (CDC, 2020). Schools are required to have adequate policies and practices that align with the federal policies for inclusion, as well as state and school district. The required federal laws help to provide students with and without disabilities the equal opportunity to participate in PE class and physical activities among all students regardless of their abilities. These findings are positive indications that inclusive policies which in a PE classroom will likely influence and increase engagement among all students with and without disabilities. In conclusion, the present study promotes current policies, as demonstrated by increased engagement among all students regardless of their abilities, and therefore supports inclusion in classrooms.

## **5.0 Reflections**

### **5.1 Reflections**

Improvement science experiments quick change with efficient and feedback that is useful to inform the system of the change in improvement (Byrk et al., 2015). One thing I learned throughout this PDSA cycle was that though I may know more than others about the PPE program, that does not mean I know what will work best in this school setting. As I was not the one teaching these lessons, I had to learn the structure of the classroom and format of how the class is designed. This taught me to listen and learn from others. Although I shared the same common goal with the BPHS team, I, had to learn to work with a variety of people with many personalities, abilities, and skills. Consequently, I had to be able to accept the feedback given from the APE teacher, Partners, and paraprofessionals with an open mind. Being a leader and advocate for this program, I had to be confident and take initiative to embrace and encourage change. As an improver, I had to learn that some people will not complete tasks given to them in a timely manner or desire to get involved with the change, and my acceptance of this was important. Learning to generate ideas and questions, for myself, my peers, and my participants and knowing that I have always been a team player and took risks as a leader, and it has aided me in my experience. What I have learned about improvement is that it requires time, more time than sometimes planned, effort, persistence, endurance, dedication, and the need to rely on others in order to participate in this change and help throughout the process.

The beginning of the intervention, I started with a strong and positive mindset that was helpful. The support I needed and received from the school, staff, students, and teacher was

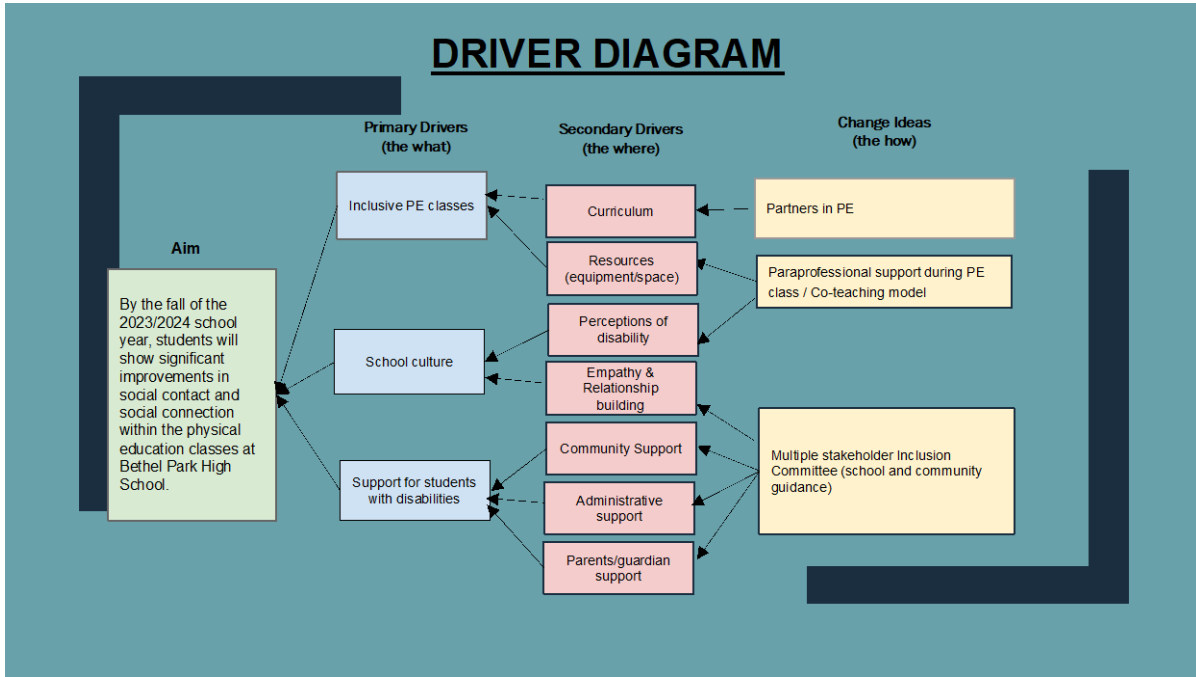
paramount. I knew that some of the staff members might not have cared to help due to the timeframe to complete this intervention or desire to add an additional task to their schedule. Surprisingly, it was a smooth transition to work with the APE teacher, as she was a former teacher of mine and now colleague who was willing to allow me into her classroom and implement this improvement change. The staff members and paraprofessionals, I thought were helpful even though they were not given much warning or training as to what to expect with the PPE program. I am thankful that all three paraprofessionals were willing to share their feedback on the PPE program. When leading the Partners' training, I faced some technology issues as I am not a teacher within the district, and I was thankful to have received help from staff members and for the students understanding. It was a team effort, and I was grateful for each one.

Going forward, I will apply improvement to other problems of practice as a scholarly practitioner by engaging with the stakeholders in my organization, building relationships with colleagues, staff, and students to better understand the needs to be met for inclusion. Questioning "why" to get at the root causes of the problem will help to drive improvement efforts and to achieve future aims. I will need to partner with the community organizations as I continue to complete small changes through PDSA cycles to contribute to a larger impact and change. I recognize that it is okay to fail and failing means you have tried and not given up as well as learned lessons and continue to make improvements. This change idea applied improvement science methodology to expose BPHS to a more inclusive PE environment and allow all students with and without disabilities to interact with one another. It is important to continue to promote the understanding and approach of inclusion. This will be accomplished by continuing the PPE program at BPHS and other schools, as well as bringing APE students into the general education PE classroom with their peers.

What have I learned as a scholar practitioner? Through this EdD program and doctoral research, I have made strides to engage in efforts as a scholar practitioner. I have developed and improved inquiry skills, both of which will impact me in the classroom and workplace. My doctoral training has prepared me to implement change in a positive way, apply the knowledge learned, and provide opportunities to develop collaboration and communication with other educators. Throughout the three years in this program, there were many changes during the years and transformations made, but the overall principles adopted by helpful educators and classmates made it possible. I feel confident as I end this program and journey and continue learning as a scholar practitioner, I will be able to have field-based opportunities to analyze more of this problem of practice, acquire knowledge, emphasize professionalism, and generate transformation within my practice. This schooling taught me to view problems through different lens, gather and analyze data, and collaborate with key stakeholders.

As I go forward and utilize what I have gained throughout this doctoral training and improvement project, I will no doubt continue to grow as an educator, practitioner, and student. I have gained the knowledge to collect and code data, conduct qualitative analyses, and develop strategic and critical skills. I have also learned to identify and address inclusion challenges experienced in the field of education. In the future, I would desire to see more inclusive school environments from academic classrooms to athletics and extra-curricular activities, involving all students regardless of their abilities. I look forward to what is ahead and am both encouraged and challenged to continue to implement change ideas to address future problems of practice.

## Appendix A Backmatter



**Figure 2 Driver Diagram for the Theory of Improvement to Promote Inclusion in PE Classes at Bethel Park High School.**

## Appendix B Student Partner (Interest Form)-Student Partner Essay

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### Partners in Physical Education

**Dear Parents/Guardians and Student,**

Welcome to Partner Physical Education! The Partners in PE program (PPE) provides an opportunity for students to be Partners for students with disabilities in the modified Adapted PE class. The class offerings will promote team sports, individual sports, exercise, and peer-to-peer participation and interaction. Principles taught in this class will follow the PE curriculum and enhance teaching and learning skills for all students. This program provides an opportunity for students to be partners and supports for students with disabilities (Athletes) in this modified PE class. Partners students will receive volunteer community service hours participating within this program. PPE will run for 4-weeks during 5<sup>th</sup> period beginning in January 2022. Week 1 will introduce the Partners to the Adapted PE setting and terminology, and expectations for the class. In weeks 2 and 3, the Partners will participate together in during the Adapted PE class. In Week 4, the Partners will be asked to meet to debrief on their experience and provide feedback.

If you are interested in being a Partners in PE as a student in PPE class, please submit an essay answering the following questions (in no more than 500 words total). The guidance counselors and APE teacher will select five to eight students to participate in the program based on their academic merit and essay answers.

Please respond to the following questions:

1. Why are you interested in being a part of the Partners in PE class?
2. Why do you think you would make a good Partner?
3. List any experiences that you have teaching or working with students with or without disabilities that might be beneficial to your success as a peer tutor, if applicable.

Fill out the information above and below and return this form. This form should be returned to the guidance office and/or APE Teacher (Ms. Serafin).

STUDENT PRINTED NAME: \_\_\_\_\_ GRADE:  
\_\_\_\_\_

PARENT PRINTED NAME: \_\_\_\_\_ PARENT SIGNATURE  
\_\_\_\_\_

DATE: \_\_\_\_\_

## Appendix C Partner Expectations & Agreement Form Partners in Physical Education

### Expectations

<b>Partners in Physical Education Contract</b>
<p>Welcome to Partners in Physical Education! We are so happy that you're going to be a part of Partners in PE in our class this year. This program and expectations will be reviewed and signed by the end. The is following Student Partner Contract and sign it with your parents. You or your parents can reach (PE TEACHER-Ms. Serafin) or doctoral student (Gemma Miller) with questions or concerns about progress in our class. We are looking forward to working with you this year and hope this will be a memorable experience for you!</p>
<p>Requirements:</p> <ol style="list-style-type: none"><li>1. Voluntarily participate in PPE classes during study hall or another PE class during this same time</li><li>2. Approval by Guidance Counselor and/ APE teacher</li><li>3. Incentive for Partners to participate receive community service hours.</li><li>4. Attend the 1-week orientation during PE class time</li><li>5. Attend all 4 of the PPE classes</li><li>6. Complete programs focus group</li></ol>
<p><b>What you can expect in our classroom:</b></p> <ul style="list-style-type: none"><li>- Partners in Physical Education program includes the same concepts, skills, and content as the general physical education program; however, it applies differentiated instruction, teaching strategies, equipment and assessments specially designed to meet the needs of students with different abilities.</li><li>- You will have fun!</li><li>- You will make a positive difference in the lives of students.</li><li>- You will be a role model, a friend, and support for students.</li></ul>



- You will help teach the students basic gross motor skills (things you use in PE-throwing, catching, kicking, etc.) and social skills.
- You can ask us any question, at any time! We will always tell you/show you what you're expected to do...We want you to be comfortable and successful in class. --Your level of engagement and participation is parallel to the students you will be working with. You will be supporting an intentional, meaningful, and safe physical education class that may be a different level than you may compete at.
- If your participation does not match that of the class, a written referral will be documented and discussed, and new expectations reviewed. If positive participation does not continue after that, you may be asked not to continue as a Partners in Physical Education.

- What we expect from YOU:**
- You will participate in and support the students learn during all physical activities
  - You will use positive language only and encourage appropriate behavior
  - You will be inclusive with all students, never isolated by yourself in the class, or socializing only with other general education peers
  - You will be engaging in activities for your own participation, also.
  - You will be respectful and helpful with all adults, including but not limited to our adult classroom aides and teachers, taking direction, and engaging in positive communication.
  - You will attend all classes and be on time.

If you are interested in being a Partners in PE as a student in PPE class, please fill out the information below and return this form.

PRINT STUDENT NAME: \_\_\_\_\_ GRADE:

\_\_\_\_\_  
Signature of Student: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix D Lesson Plans

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1. INTRO WEEK/ Partner training

a. Orientation for Partner

i. Day 1: Orientation & Expectations

See handouts

See PowerPoint

ii. Characteristics of Down Syndrome & Autism

PowerPoint

2. **Lesson 1: PPE**

a. Warm up

b. Dance Song

c. Intro to lesson:

i. Relay Races- Loggers (noodle- into 3s; 2 hold noodle and one jump over)

ii. Stations (volleyball)

1. Squats and hands in front

2. Handkerchiefs toss and switch spaces

3. Beach ball

iii. **Volleyball game situations**

1. Student will demonstrate knowledge of body positioning (anticipation), teamwork, sportsmanship, and game knowledge of volleyball within a game situation success

iv. **Rubric descriptors**

1. Student will anticipate where the ball is going and move to the ball to make the next play  
Student will play the position and set the ball up for others to hit the ball  
Student knows the rules, how to keep score, illegal hits, boundaries, and when to use which skill
2. Student plays by the rules, acknowledges good plays by teammates and opponents, and encourages all to do their best
  - a. Bump: thumbs together and forearms flat
  - b. Serve: do not toss the ball up, it is a hit with your palm or fist
  - c. Use a modified “net” - suspended rope, row of chairs
  - d. Use a suspended “ball” - suspend balloon or beach ball in front of student to strike
  - e. Have students sit or stand on polypots or other flat markers

**Mini Game - Sit Down Volleyball**

- 2 teams with 2 - 4 players per team

- Use either a volleyball net lowered or toilet paper as a low net
- Use balloon or beach ball
- Teams must keep ball in play, if possible, without it touching the ground

d. Closing- Stretching and cool down

### 3. Lesson 2: PPE

a. Warm up

b. Dance Song

c. Intro to lesson (volleyball)

i. Relay races- FROGS across the pond (Polly pads/spots) split into teams

ii. Stations- review stations from Lesson 1

#### iii. Mini Game - Beach Ball Barrage

1. Set up volleyball court with net at appropriate height

2. Have players scattered on both sides of the net evenly

3. The leader puts one ball at a time into play until several balls are in motion

4. The players attempt to keep all balls aloft and send them back and forth over the net

5. If ball lands on floor, pick it up and put it back into play

#### iv. Mini Game - Newcomb

6. Ball is thrown over the net
7. The other team attempts to catch it
8. Points are scored when a team fails to catch or volley the ball and it hits the ground

d. Closing

#### **4. Lesson 3: PPE**

- a. Warm up
- b. Dance Song
- c. Intro to lesson:
  - i. Relay Tag- horse, gallop, and hay (someone gallops on noodle across floor to grab the hay and switch partner till all the hay is picked up)
  - ii. Capture the Flag
- d. Closing

## Appendix E Student Partner Focus Group Discussion Guide

### Focus Group Discussion Guide

Objective: to gain further insight into the effect of the PPE program on 10-12th grade students from the perspective of the Partners

#### Welcome/Introduction (1-2 min)

Introduce yourself

Ground rules: Please talk loudly and clearly and speak one at a time so we can hear from everyone. Be courteous.

Remind them of confidentiality, session recorded, etc.

Also mention bathroom, water, and they are there voluntarily.

Ask questions, Have fun!

#### Opening Question (1-2 min)

1. Please tell me the name you would like us to refer you as during this discussion, and your favorite activity you like to do in your free time.

#### Introductory Question (5 min)

2. Today we are going to talk about the PPE program and as a Partner with your experience in the program. What made you decide to participate in the PPE program?

### **Key Questions (32 min)**

3. Considering the pandemic and changes in our culture, we wanted to modify the PPE program this year to increase support for our students. Some of the ways we tried to do this was by increasing the number of Partners in PPE and including high school 10-12th graders all activities with concepts such as teamwork, respect, responsibility and more.
4. Could you share a little about what you enjoyed about the PPE program?
  - a. Probe: If there is something you liked, why did you enjoy that aspect?
5. What did you not enjoy about the program?
  - a. Probe: If there was something you did not like, why do you think that was?
6. What did you learn about yourself during these last few weeks? About others?
  - a. Probe: any changes to their behavior, communication, interactions with peers, etc.  
?
7. How, if at all, did this change the way you think about people with disabilities?
8. As we plan the program for the fall, what recommendations do you have for a future program?



**Concluding Questions (2 min)**

9. Is there anything else you would like to share today about the program?

**Give summary of main points covered and findings:**

Ex. “So far today we have talked about [...], and you all mentioned that [...] Do you think this summary covers the main points we talked about today? Is there anything I forgot to say or should leave out?”

Thank the participants for their time.

Dismiss them.

## Appendix F PE Teacher Interview

1. What was your experience implementing the PPE program?
  - a. What went well?
  - b. What didn't go well?
  - c. What reservations did you have, if any?
2. How did you think the PPE program impacted the athletes? The partners?
3. What recommendations do you have for a future PPE class?
4. Anything else you'd like to share?

## **Appendix G Paraprofessional Feedback Form Questions**

1. What was your observation and feedback of your/students (Athletes) behavior and experience?
2. How did you think the implementation of the PPE class went?
3. What was your perspective with both set of students (partners and athletes)?
4. What was your experience in the PPE classroom? Highlights? Challenges? Perspectives?
5. How was the behavior of your student/students (Athletes) after class and throughout the rest of the day?
6. Anything else you want to share?

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