

Disclaimer

The content presented in this guidebook is intended for informational purposes and to provide suggestions to enhance participation in physical education classes for students with select disabilities. The suggestions included are not all-inclusive and are not intended to substitute for occupational or physical therapy treatment. If it appears a student could benefit from occupational or physical therapy, they can be referred by their primary care physician. The author of this manual provides no warranty about the content enclosed and information provided is subjective. The author shall not be liable for any damages resulting from the use of this guidebook.

Abstract

Physical activity provides all people, including those with disabilities, with many physical, mental, and social benefits. Participation in a physical education class at school is very important for students with disabilities, not only to reap the physical benefits but also to help build an identity, confidence, friendships, and to feel success. This project was to provide an educational guidebook and one-on-one training for a general education P.E. teacher who has volunteered to teach a pull out class of high school students with an Autism Spectrum Disorder or severe learning disability. The educational guidebook provided an overview of the legislation impacting special education, the benefits of physical activity, modifications to teaching style, the environment, and the activities. The teacher was educated on the modifications as well as given a template to aid in modifying other physical activities.

Context of the Problem

Participation in active leisure activities has several benefits for adolescents (12-21 years old) with mental and/or physical disabilities. Some of these benefits include increased confidence, greater social participation, and better overall health (Jessup, Cornell, & Bundy, 2010). Murphy, Carbone, & Council on Children with Disabilities (2008) suggested that active leisure participation creates opportunities for students to make friendships, express themselves, and find purposeful activities in which they can participate and have successful experiences, regardless of the context of the situation. Other research by Rimmer and Rowland (2008) found that physical benefits such as increased bone density and better management of body weight can also be a result of participating in active leisure activities. For adolescents with disabilities, opportunities for participation out in the community may be limited due to a lack of accessibility, time, money and/or transportation. However, opportunities are endless during the school day because the students are already present, physical education (P.E.) is free and should be offered to all students, and accessibility should not be an issue. Teachers and parents should advocate for all students to participate and be included in physical activity so they can reap the benefits of the activities.

The United States government has regulations in place to ensure the inclusion and participation of students with disabilities in the schools when alongside peers without disabilities. In 1975, the United States government passed the Individuals with Disabilities Act (IDEA) which emphasized the importance of including peers with disabilities among typically developing populations. IDEA, today, gives students with disabilities the right to receive a Free and Appropriate Education (FAPE) in the Least Restrictive Environment (LRE), within public schools (U.S. Department of Education, 2011a). Preceding IDEA, the United States government

passed Section 504 of the Rehabilitation Act of 1973, which mandated that organizations which received federal funding cannot exclude an individual from any activities due to their disability (U.S. Department of Education, 2011b). Since public schools receive federal funding, students with disabilities must be given equal opportunities to participate in all aspects of the curriculum, including physical education and extra-curricular activities (U.S. Government Accountability Office, 2010). Physical education and extra-curricular activities provide opportunities for students with disabilities to explore new leisure activities, increase social participation, and create friendships with their peers. Similarly, several physical benefits can be gained by those who actively participate in physical education and/or extra-curricular activities.

However, the opportunity for students with disabilities to increase physical participation in physical education classes has been dependent on the teacher and the way he/she included the students with disabilities in the activities. A survey by the United States Government Accountability Office found that most teachers felt very under-trained and inexperienced in creating and implementing inclusive programs and activities for P.E. classes, which contributed to the lack of inclusion, participation, and de-conditioning of students with disabilities (U.S. Government Accountability Office, 2010). Related services such as occupational therapy can help bridge the gap between what the teachers were taught and what the teachers need to know about including students with disabilities into their classes. Occupational therapists can help teachers overcome their feelings of inadequacy by educating teachers about changing the environments to promote inclusion and successful participation of all students.

Unfortunately, not many schools have occupational therapists working in physical education classes even though that role fits within the scope of practice set forth by the American Occupational Therapy Association (AOTA) (OT, personal communication, March 22, 2011).

Leisure and social participation are both areas of occupation in the Occupational Therapy Practice Framework which outlines the scope of practice for occupational therapists (AOTA, 2008). Occupational therapists have an understanding of the benefits of physical participation and the skills necessary to complete activity analyses and to implement strategies for students to be successful within the school environment. Occupational therapists also have knowledge about creating inclusive and successful environments so adolescents with disabilities can reap the benefits of physical participation during school.

In conversations with an occupational therapist working in an urban school district in the Pacific Northwest about the role of occupational therapy in schools and the government report mentioned above, she asserted that participation in leisure activities is very beneficial for students with disabilities. She explained that the school district she works in is trying to adapt their programs including the P.E. classes to be more inclusive and accessible to those students with disabilities. Currently, the students with disabilities are expected to go to general P.E. classes, but typically end up sitting on the side and watching because the teachers do not have the training or knowledge to adapt the activities so children with disabilities can participate with the rest of the students (OT, personal communication, March 22, 2011).

According to this occupational therapist, the next step in this process was to educate the teachers about the common disabilities seen within the schools, the possible adaptations or modifications that can aid participation, and to ensure the teacher that the students with disabilities can be successful and gain some knowledge and skills in the P.E. class. One general education P.E. teacher in this district had expressed his desire to make the changes necessary to create inclusive and successful P.E. environments for his students with disabilities. In conversations with him, we decided a guidebook and one-on-one training would be the most

helpful form of education for him to begin creating an inclusive and successful P.E. environment for all students he may teach (P.E. teacher, personal communication, 5/10/11).

Currently, this teacher is working in a “pull out” method: separating the students with disabilities into a gym adjacent to the gym the typically developing students are using, even though all the students are technically in the same class with a teacher for the two groups of students. The teachers plan to do similar activities, but in reality the typically developing students will be playing basketball on the regulation size court while the students with disabilities are running around rather disorganized, some playing basketball and others not engaged at all. Even though the students with disabilities are in their own space, this teacher feels that he does not know how to teach them and has very few structured activities for the students (P.E. teacher, personal communication 5/10/11). The goal for this teacher is to become educated about the changes he can make and implement them so the students with disabilities will be able to participate successfully with the rest of the class during the P.E. activities. Secondly, the teacher may also see the students with disabilities increase their confidence and overall social participation skills. Ideally, with these changes, a better school environment and experience for all students with or without a disability will be created (Shapiro & Martin, 2010).

Purpose

The purpose of this project was to provide a guidebook and education for an urban P.E. teacher that includes information about common diagnoses he may encounter and simple adaptations, modifications, and activities to increase participation for students with disabilities.

Overview of the Project

This guidebook was created to help inform and educate a high school physical education teacher in an urban school in the Pacific Northwest about common diagnoses of students, the legislation that affected his teaching, and adaptations or modifications he could make to increase participation during class. It also included suggestions for adjusting current activities and new activities so all students could be included and provided the opportunity to meet the physical education requirements necessary for a high school diploma.

A brief one-on-one training component was also part of this project. The adaptations, modifications, changes to current activities, and the new activities were explained to the teacher by the occupational therapy student. During that time, the teacher was asked for any suggestions or concerns he had with any sections of the guidebook to be emailed to the occupational therapy student.

As a result of this project, the P.E. teacher should feel better equipped to teach the students with disabilities in his physical education class. Instead of having the students with disabilities not fully participate during class, he will be able to implement simple adaptations or modifications to the activities to create a successful environment for all students. Ideally, after being set up for success in the P.E. class, the students with disabilities may gain confidence, social interaction skills, and hopefully their peers without disabilities will see their abilities and talents rather than focusing on their disability.

This guidebook had seven specific sections which are outlined below:

1. Legislation
 - a. Individuals with Disabilities Act
 - b. Section 504
 - c. Physical Education Essential Academic Learning Requirements

2. Benefits of Physical Activities
 - a. Physical Benefits
 - b. Psychosocial Benefits
3. Descriptions of Common Disabilities
 - a. Autism Spectrum Disorders
 - b. Attention Deficit-Hyperactive Disorder
 - c. Learning Disabilities
4. Modifications and Adaptations
 - a. Teaching Modifications
 - b. Environmental Modifications
 - c. Activity Modifications
5. Current Curriculum
6. Physical Education Activities
 - a. Baseball/Softball
 - b. Basketball
 - c. Soccer
 - d. Volleyball
 - e. Yoga
7. Additional Resources
 - Appendix A: Template for Future Activities
 - Appendix B: Essential Academic Learning Requirements
 - Appendix C: Current Curriculum Table of Contents
 - Appendix D: How to Use a Peer Tutor
 - Appendix E: Photo Cards

Background/Literature Review

According to the Centers for Disease Control and Prevention there were 73,996,000 children under the age of 18 in America as of 2009 (Bloom, Cohen, & Freeman, 2010). Of these 73 million children approximately 13 percent had some type of physical or mental disability.

The most common disabilities seen in children were Learning Disabilities (LD), Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASDs), Cerebral Palsy (CP), Intellectual Disabilities (ID), Developmental Delay (DD), and Emotional Disturbance (ED) (Bloom et al., 2010).

Benefits of Physical Active Leisure Activities

Physical education and leisure activities, in general, provide several health benefits for everyone, with or without a disability. The lack of opportunities to participate in physical activities with success has been one of the many factors leading to the unhealthy state of students with disabilities. In the United States about 30 percent of high school students with disabilities were obese (Kodish et al. 2006). For some students with disabilities, weight gain may have been a side effect of the medications they were taking or secondary to their disability. However, the lack of physical activity could have been a huge contributor to the obesity for this population. Physical education classes may have been the only place a student with a disability had the opportunity to participate in physical activity. Rimmer and Rowland (2008) found that students with disabilities who participated in physical activity had an increased bone density, better management of body weight, and a lower risk of high blood pressure in adulthood. Therefore, it is very important to get these students actively participating in physical education.

Place and Hodge (2001) conducted a behavior analysis of students with disabilities who were supposedly in an inclusive general physical education program. They found that the inclusion of students with disabilities could have positive outcomes as long as there were positive and meaningful social interactions with their able-bodied peers (Place & Hodge, 2001). However, most of the time, the meaningful positive social interactions were not happening in the inclusive classes for several reasons. Place and Hodge (2001) found that typically students with

disabilities were separated from the group either by physical boundaries or by choice because of fear of failure and ridicule from peers. Place and Hodge further observed that students without disabilities only acted out of moral obligation towards their peers with disabilities. However, if there were proper curriculum adaptations and modifications, increased social interactions resulted and all parties involved were happier (Place & Hodge, 2001).

Anderson (2009) found that socialization helped shape the self-concept and self-view of students. The high school years for most students, whether they had disabilities or not, were crucial in order to develop skills and self-worth that would impact him/her for the rest of his/her life. Healthy social interactions between students with disabilities and students without disabilities were rare unless they were fostered during a class or by an adult. Including students with disabilities in P.E. classes, if done appropriately, could have created opportunities for these social interactions and cultivated normal identity development during this difficult time in a student's life (Anderson, 2009).

Inclusion

Inclusion of students with disabilities has become a rising topic over the last decade. There is no agreed upon process of how, when, and where students with disabilities should be included, nor how students without disabilities will respond to the disabled students in the classroom. A review of the literature conducted by Block and Obrusnikova (2007) concluded that students with disabilities could be successfully included in general education classrooms if they were given the proper support and if their peers without disabilities had a positive attitude toward those with disabilities. The proper support could be provided through a peer tutor, a teacher assistant, or an adaptive physical educator. Support may have also been given through modifications or adaptations to the teaching method or activities. However, when the

modifications or adaptations alter the original activities too differently from the original, students without disabilities began to develop negative attitudes towards those students with disabilities who required these modifications (Block & Obrusnikova, 2007). Furthermore, Block and Obrusnikova (2007) found that if the students with disabilities were properly supported, there were no negative effects on the learning or participation of students without disabilities.

Lack of training and funding has had an extreme effect on a teacher's ability and confidence when trying to create an inclusive class. In an opinion piece written by Block for Teaching Elementary Physical Education publication, he found that there were few training opportunities for general education teachers about creating an inclusive environment. He also found that there were very few in-service opportunities to learn these skills (Block, 2003). With the lack of proper training, unfair expectations are placed on the teachers to adapt and modify physical education activities for those students with disabilities who are placed in their general education class, while simultaneously maintaining the purpose and benefits of the class. Teachers echoed these ideas in Casebolt and Hodge's study (2010), which claimed they need more professional training to develop the skills needed to feel competent to teach students with disabilities. Furthermore, teachers felt extremely unprepared because they did not have the funds for the adaptive equipment that several students needed in order to be successful in P.E. class (Casebolt & Hodge, 2010).

An inclusive environment could have both positive and negative effects on the students without disabilities. Block and Zeman (1996) found that when students with disabilities were placed in a general physical education class with an unprepared teacher, the experience may have become negative for all students with or without disabilities. The students without disabilities were frequently not challenged due to the teacher attempting to include the students with

disabilities. As a result, the teacher was not meeting the State Standards for any of the students. Block and Zeman (1996) also found that the rate of skill improvement for students without disabilities depended on what was being taught and how the students with disabilities were included in the activity. But Rarick and Beuter, as reported in Block and Zeman (1996), found students with disabilities in an inclusive classroom had greater gains of motor performance than those who were in a self-contained classroom. The overall results from Block and Zeman's study showed that there were no compromising effects to the students without disabilities of having an inclusive classroom on students without disabilities if the teacher was well prepared and trained.

Students with disabilities had their own opinions about inclusion in the general physical education classes. James, Kellman, and Lieberman (2011) found that students would rather sit out than be made fun of and laughed at by their able bodied peers. However, after modifications/adaptations to the curriculum had been made, allowing students with disabilities to participate by being more than just a "line judge" or "benchwarmer," they began to feel part of the team or class (Spencer-Cavaliere & Watkinson, 2010). Feeling part of the team fostered better attitudes and outlooks for the students with disabilities—it also changed the attitudes of the able-bodied teammates. Furthermore, properly including students with disabilities in activities created opportunities for further social interactions outside the classroom (Spencer-Cavaliere & Watkinson, 2010). As noted before, social participation is an important part of adolescence and in discovering one's self and inclusive P.E. activities can be a place to foster these interactions.

Occupational Therapy and Physical Education

Even though providing services in a P.E. class would be considered part of the occupational therapy scope of practice, it can be difficult to prove that working in a P.E. class is

academic, as all related services in the school district need to be. The American Occupational Therapy Association (AOTA) stresses the importance of participating in leisure activities by including it in one of the six areas of occupation listed in the Occupational Therapy Practice Framework (AOTA, 2008). The goal for an occupational therapist would be to help people of all ages participate in meaningful and purposeful activities, which could and should include physical education for students with disabilities. Furthermore, the benefits of participating in physical activities were not only increasing physical strength and endurance but also a general enhancement of a persons' overall wellbeing (Shapiro & Martin, 2010). The school system is a great place to introduce students with disabilities to several different activities that they can be successful in alongside their peers without disabilities. Successful inclusion of students with disabilities could be aided by occupational therapists because therapists have background knowledge of activity analysis, the tools to adapt and modify the current curriculum, and the ability to create education programs to help general education teachers produce a positive and successful inclusive environment.

Legislation Influencing Schools

The National Center for Education Statistics (NCES) reported that approximately 6,606,000 children ages three to 21 were served in federally supported programs, such as public schools. This was double the number of children who were served in 1977 (U.S. Department of Education, National Center for Education Statistics, 2010). There could be several reasons for this increase in the number of children being served in federally funded programs. The most impactful changes may have been the passing of Section 504 of the Rehabilitation Act of 1973, which was quickly followed by the Education for All Handicapped Children Act, passed in 1975 (Pacer, 2004). Section 504 of the Rehabilitation Act of 1973 banned the discrimination against

any persons based on a disability. It required that public schools, because they received federal funds, give students with disabilities equal opportunities to participate in extracurricular activities, including athletic teams, alongside their peers without disabilities (U.S. Government Accountability Office, 2010).

Individuals with Disabilities Education Act (IDEA)

Another influential law is the Education for All Handicapped Children (later renamed the Individuals with Disabilities Education Act), which gave children legal rights to an education. Two of the requirements of IDEA are that students with disabilities be placed in the 'least restrictive' environment and receive an individual education plan (IEP) if the student meets the qualifications. If eligible for special education and an IEP, the team which consists of at least one general education teacher, the special education teacher, the caregiver, the student, and the therapists, will outline the modifications and adaptations the student may require in order to be successful in school and get the most out of his/her education (IDEA, 1997).

Education in Washington State

In Washington State, as of May 2009, there were 1,040,750 children with and without disabilities attending school (Dorn, 2010). That same year approximately 12.7 percent of those students received some degree of special education services. According to the NCES, 56.8 percent of students with disabilities were mainstreamed, meaning taken out of Special Education classrooms and placed in General Education classes (U.S. Department of Education, National Center for Education Statistics, 2010). This suggested that 56.8 percent of students with disabilities were in classes taught by teachers with very little or no training about the disabilities, as seen previously in the 2010 survey by the United States Government Accountability Office (U.S. Government Accountability Office, 2010). These teachers may not have been able to give

the students with disabilities the proper attention or modifications they needed or were required by the IEP to promote success for the student. The percentage of students with disabilities participating in general education P.E. classes appeared to be higher than academic general education classes (U.S. Department of Education, National Center for Education Statistics, 2010). This suggested two things: students with disabilities were able to participate at the same physical level as their peers or because all students needed the P.E. credits to graduate. The latter could mean the students with disabilities were put in a class expected to watch, because it appeared they cannot participate, and the teacher may not have had the background knowledge or understanding of how to allow all students to participate (Fine, 2009).

Graduation Requirements in Washington State

Washington State public high school graduation requirements are outlined in the Essential Academic Learning Requirements (EALRs). Students are required, with few exceptions, to take two years of physical fitness during high school. The exceptions include, “employment, religious belief, participation in directed athletics or military science and tactics, severe physical disability, or for other good cause” (RCW 28A.230.050). According to Washington State Office of Superintendent of Public Instruction (2011), within those two years the following requirements must be met (See Appendix for exact requirements):

- Students acquire the knowledge and skills necessary to maintain an active life, movement, physical fitness, and nutrition
- Students develop motor skills and movement concepts as developmentally appropriate
- Students acquire the knowledge and skills to safely participate in physical activities
- Students understand the components of health-related fitness in order to improve performance

These are also requirements for students with disabilities, which can create a number of unique challenges for general education P.E. teachers.

Setting and Population

The urban school district (in which the school for this project is part of) has five high schools in which students with disabilities are attending. Most of these students are placed in both the general classes as well as special education classes depending on their individual needs. This district served 3,548 students with disabilities, approximately 13% of students in this district, who, in order to meet graduation standards, needed to be included in physical education classes (District Webpage, 2011). If the students were required to take the P.E. classes, they should have been included and successful in order to gain the most benefit for now and in the future. An inclusive and successful PE environment is supported by the schools' mission statement which declares, "In partnership with parents and community, we will provide a comprehensive educational experience that is rigorous, individualized and enables students to contribute to a changing and diverse world" (District Information, 2011).

This urban school district was fortunate because they have an adaptive physical education teacher to consult. However, she only visits 6 schools out of 14 middle and high schools and only works with the self-contained classrooms, leaving out many students with disabilities who have been mainstreamed (APT, Personal communication, 4/15/2011). She had assisted some general physical education teachers with quick ideas for modifications and adaptations to current curriculum, but she did not have time to properly educate the teachers, so the students with disabilities who were mainstreamed typically lose out on the opportunity to participate in physical education class. Similarly, an occupational therapist in the school district also expressed the need to educate the general Physical Education teachers in modifications,

adaptations, and inclusion for students with disabilities (OT, Personal communication, 3/22/2011). She noted that students with disabilities currently “sit on the side [of the field, court, etc.] and watch” or do not even go to the gym for P.E. class, creating more of a difference between students with and without disabilities.

Implications for Occupational Therapy

Occupational therapy has a fundamental goal of enhancing people’s quality of life through participation in their occupations. This goal is the same for occupational therapists who work in the public school system, although the interventions implemented must have an educational component, because the occupation of high school age children is to be a student. Interventions may also focus on the transition out of school and onto the next step in life as that is a component required in the IEP. One of the requirements in the state of Washington is that all students have physical education services offered to them, even if they needed a specially designed program (Washington State Legislature, 2011). However, occupational therapists may spend little time working specifically with students in physical education classes. This may occur if administrators do not value the educational aspects of P.E. Without the interventions of the occupational therapists, some students may have been limited in their potential participation in these classes and their life outside of the classroom. But as Dunbar (2007) stated, advocating for full participation of students is within the scope of occupational therapy. Therefore, occupational therapists should be educating teachers about creating inclusive environments and curricula that afford all students the ability to participate in meaningful occupations in school.

Physical education classes are one of the places that students can develop skills to participate in active leisure activities as well as learn about health and general fitness that will benefit them in the future. In a study by Huotari, Nupponen, Mikkelsen, and Kujala (2011), it

was found that physical activity levels in adolescents can help predict physical activity levels in adulthood. School based occupational therapists should be trying to make a difference in the student's abilities and perceptions of themselves, to hopefully impact the future by helping to set the student up for success. Understanding the benefits of physical activity at a younger age may help long term as students with disabilities prepare to start taking care of themselves independently and making life choices without parents or teachers to guide them. This educational guidebook provided general education teacher some of the tools and knowledge needed to help change the environment of physical education classes to be more inclusive, accessible, and successful for all students to participate.

An occupational therapist should be the person who is educating this specific teacher about the adaptations and modifications he can to include more of his students with disabilities during the class period. Occupational therapists are trained to know how to specifically adapt and modify the environments to afford students with successful outcomes and increased participation (Dunn, Brown, & McGuigan, 1994). Since occupational therapists have this training, they should be educating others and at the same time advocating for the inclusion of the students with disabilities in all classes, but especially PE where they tend to be excluded.

Theoretical Model and Application

The Ecology of Human Performance (EHP) model is an occupational therapy model that considers the effect of context (environment) on the person's performance as well as the person and the activity demands of the tasks (Dunn, Brown, & McGuigan, 1994). Performance in the EHP model is the ability of a person to use his/her skills to act within the context. One of the goals of this model is to create successful performance by intervening with either the person, the task, or the context. The EHP model has five intervention strategies; establish or restore, alter,

adapt, prevent, and create (Dunn, Brown, & McGuigan 1994). Establishing or restoring is a strategy that focuses on the person's abilities, either to develop a new skill or retrain a lost skill. Altering is an intervention where changes to the context are made to help the person be more successful. The intervention strategy of adapting or modifying focuses either on the context or the task. The demands of the task would be adjusted or a change in the environmental variables would be made to afford the person with success. Prevention is an intervention that focuses on the anticipation of problems that might occur and changing the strategy of the person to avoid the problem. Lastly, to create is using a population-based intervention to produce a context that affords everyone with success. These five strategies provide different ways to adjust the context, person, and activity to promote the highest performance for a person.

However, these five strategies cannot stand alone. They must be used within the context of the task. Using one of these strategies outside of the context (environment) in which a person would typically perform the task can lead to invalid results of assessment, leading the therapist in a different direction. If an occupational therapist bases his/her interventions on invalid results, the interventions will be unsuccessful.

This model guided this project because the teacher was working within a context of the P.E. classroom that had been designed to support typically developing students while teaching several students with disabilities. The EHP provided a framework that was easy to work within in order for him to match the context with the students' abilities (Dunn et al., 1994). The context of the general P.E. class was fast paced, unstructured, and loud. This context may have been preventing some students the ability to reach their full performance. This lack of performance by students with disabilities may have been contributed to the teacher not having the background knowledge of how change the context or task to benefit students with

disabilities. This guidebook informed the general education P.E. teacher how to establish a context that promoted performance and participation for students with disabilities who may have never had the opportunity to succeed in P.E. due to environmental barriers. The teacher also became aware of strategies to alter, adapt, and create activities and the environment so that all the students, no matter their ability, can reach the performance level and the standards set by the Washington State Education Department.

Application of the Occupational Therapy Practice Framework

The Occupational Therapy Practice Framework (OTPF) is a document that defines and outlines the scope of practice of occupational therapy. It is comprised of two sections, the domain and process. The domain section outlines the six main areas that occupational therapists have a body of knowledge and expertise in. The main occupational therapy domains this project will work within are context and environment, performance skills, and activity demands. Having expertise in context and environment allows an occupational therapist to look at and consider the cultural, personal, physical, social, temporal, and virtual environments in which the students and teachers participate in and adapt them to encourage performance. Performance skills are the skills of people that allow them to participate in different activities within the different environments. Activity demands are the necessary traits or requirements needed to complete the activity. The second part of the Framework, the process, outlines how occupational therapists should use their expertise in order to serve the clients with evaluations, interventions, and outcome monitoring (AOTA, 2008).

Occupational therapists also play a huge role in the advocacy for the well-being of all populations through inclusion and nondiscrimination (AOTA, 2008). For many school-based occupational therapists being an advocate for students with disabilities is an important role. The

occupational therapist in this district had done just that and was advocating for full and successful participation in physical education classes for students with disabilities (OT, Personal communication, 9/27/11). This guidebook, given to the teacher in May 2012, has impacted the teacher's beliefs and knowledge about inclusion and participation for all students no matter their abilities. Other areas addressed by this project were the activity demands of each piece of the curriculum taught by the teachers as well as the context and environment in which the activities took place. Analyzing activity demands and working within the context and environments are two key pieces of the occupational therapy practice framework (AOTA, 2008).

If the teacher follows through implementing suggestions from the guidebook, the secondary populations, the students, will be greatly impacted as well. The students will be taught health management and maintenance, benefit from fully participating in formal education, and develop performance skills that will carry over to help them in their 'adult' life (Washington State Legislature, 2011). All these concepts are within the scope of practice for occupational therapists, but since occupational therapists cannot stay with every student all the time, educating the teacher on how to create successful environments and tasks will benefit the students greatly. The teacher should also see the impact he is making on these students futures, knowing that they have been successful in PE and met the graduation requirements, instead of just wasting their time in the PE class because they had to be there.

Project Goals and Objectives

Goal 1: Inform a general Physical Education teacher about the benefits of physical activity to all students and how it can be achieved in order to promote success for students with disabilities in his class.

Objective 1: After reading the guidebook, the PE teacher will be able to name three benefits of physical activity for students with disabilities.

Objective 2: After reading the guidebook, the PE teacher will list two changes he can make instantaneously to create a more successful environment for students with disabilities.

This goal has been met. During the educational session with the teacher, he was able to state at least three benefits of physical activity for students with disabilities. He also talked about the changes to the environment that he was going to try later that day.

Goal 2: Educate the general Physical Education teacher about the typical disabilities students he teaches may be diagnosed with, in order to understand the typical strengths and limitations and easy modifications and adaptations for students with these disabilities.

Objective 1: The PE teacher will be able to name and describe two of the most common diagnoses he may encounter in the students he teaches.

Objective 2: The PE teacher will list three modifications and/or adaptations he can make for students with one of the two most common diagnoses he may encounter.

This goal was met in May 2012 when the teacher received the guidebook.

Goal 3: The teacher will be able to explain and implement the simple modifications/adaptations that can be made to current general education curriculum to increase participation of his students with disabilities.

Objective 1: The PE teacher will be able to explain at least one modification to a current activity so all students no matter what their diagnosis can participate in and be successful.

Objective 2: The PE teacher will be able to implement changes for at least one new activity that includes students with disabilities successfully in active participation after meeting with the OT student.

This goal was met in May 2012 when the guidebook was given to the teacher.

Outcomes

The general P.E. teacher received an educational guidebook to foster more meaningful and successful participation of students with disabilities in the physical education classes. The guidebook explained about Autism Spectrum Disorders, Attention Deficit-Hyperactive Disorder, and Learning Disabilities, the benefits of participation for students with disabilities, as well as explained a few easy modifications to the teaching methods, environment and tasks which the teacher can implement to encourage more successful participation of students with disabilities. There was also a section in the guidebook about the legislation that affects physical education classes. Portions of the guidebook were piloted at one school in an urban school district in the Pacific Northwest. When the teacher received the final product, he was encouraged to share the information and further educate other physical education teachers.

Limitations of the Project

There were several limitations to this project. First, the activities were not tried in the classroom with the students with disabilities due to time constraints of when their class was held and the schedule of the occupational therapy student. This meant that some of the modifications or activity suggestions may not work with the student population. Secondly, the lack of a formal curriculum being used by the teacher in the class made it difficult to suggest modifications the teacher could make to current activities. Third, the lack of funding for the school to invest in new equipment limited the activity suggestions. Lastly, the occupational therapy student's lack

of hands on experience with students with an ASD, ADHD, or LD created a challenge when writing modifications and providing good activity suggestions that would be beneficial for the students with disabilities. It would have been helpful to know what the physical capabilities of the students with disabilities were, to make more helpful and personal modification suggestions instead of general statements.

In order to correct these limitations, the occupational therapy student should have arranged more times to go and observe and help out in the P.E. class early on in the project in order to learn the physical capabilities of the students with disabilities. Then times should have been arranged for the occupational therapy student to go assist the teacher to implement some of the modifications provided in the guidebook as well as try some of the activities in the guidebook. If the occupational therapy student had been able to try the activities, she may have been able to make more specific suggestions and modifications to better support the participation of the students with disabilities. Funding will always be an issue, but the occupational therapy student could have asked the teacher if there was any equipment he was planning on purchasing or if there was any money to purchase equipment. Knowing what could be purchased could have expanded the possible modifications and activity suggestions in the guidebook.

Special Circumstances or Considerations for the Project

Special considerations for this project included writing the education guidebook in a way that is understandable for high school teachers and paraprofessionals. The layout of the book needed to be simple, but specific, in terms of what materials are needed for each activity and how the activities can be graded for different students. When planning the activities, time, space, and weather restraints needed to be considered.

With all the budget cuts in the education systems, the activities needed to be simple and cost effective. The teacher should not have had to purchase special or extra equipment in order to create the successful environments. The activities, adaptations, and modifications in the guidebook needed to be based off of what the school currently uses. There also needed to be a clear distinction of why this project was completed by an occupational therapy student and not an adaptive physical education teacher.

Lastly, it was considered that every diagnosis cannot be described but the most commonly seen diagnoses specified by the teacher at this school were included. The physical education teacher needed to understand that this guidebook was a starting point and would provide him with good skills and ideas to build from, not the end all for all questions or situations he may have come across when teaching.

Recommendations for Sustainability of the Project

This project should be self-sustaining because a template was provided in the guidebook for the teacher to use when considering different activities to try with his students with disabilities. It would be helpful for the teacher to attend continuing education classes about students with disabilities especially those classes offered about teaching students with an ASD, ADHD, or LD. As the teacher gets more experience with the modifications he can make and learns how the students react to the modifications, he can continue to try different combinations of modifications to find what is most successful for his class. It will be important for the teacher to remember that the goal of the class is to increase participation not necessarily competition.

Recommendations for Future Projects with this Agency

When working with this agency, it is important to keep open lines of communication. It is also important to go to the site and check in with the teacher with face-to-face conversations

instead of just e-mail. This type of project required a great deal of understanding between the occupational therapy student and the teacher the guidebook was developed for. Getting more involved, either through volunteering or observing in the classroom that will be served will provide insight about the teacher and student interactions, the needs of the teacher and the needs of the students with disabilities. Also, working with the teachers who are passionate about learning more and trying to get the students with disabilities fully participating is crucial to the success of the project.

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*Appendix***Fitness EALRs**

This information has been adopted by Sarah Bicker, OTS from the Washington State Learning Standards.

For the complete listing of the EALRs go to

http://www.k12.wa.us/curriculum/instruct/ealr_gle.aspx

EALR 1: Student has the knowledge and skills to maintain an active life: movement, physical fitness and nutrition

1. Develop motor skills and movement concepts as developmentally appropriate.
2. Acquire knowledge and skills to safely participate in a variety of developmentally appropriate physical activities
3. Understand the components of health-related fitness and interpret information from feedback, evaluation, and self-assessment to improve performance.
4. Understand components of skill-related fitness and interpret information from feedback, evaluation, and self-assessment to improve performance.
5. Understand the relationship of nutrition and food to body composition and physical performance.

EALR 4: Student effectively analyzes person information to develop individualized health and fitness plans.

1. Analyze personal health and fitness information.
2. Develops and monitors a health and fitness plan.