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**HIGH SCHOOL AGE STUDENTS WITH DISABILITIES AND SOCIAL
INTERACTION IN A GENERAL PHYSICAL EDUCATION SETTING**

by

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A Thesis

Submitted to the
Department of Interdisciplinary and Inclusive Education
College of Education

In partial fulfillment of the requirement

For the degree of

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Thesis Chair: S. Jay Kuder, Ed.D.

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Abstract

Kelsey B. Hannan

HIGH SCHOOL AGE STUDENTS WITH DISABILITIES AND SOCIAL
INTERACTION IN A GENERAL PHYSICAL EDUCATION SETTING
2017-2018

S. Jay Kuder, Ed.D.

Master of Arts in Special Education

The purpose of this study focused on the social interaction of high school age students with disabilities in a general physical education setting. The study included two students in tenth grade in an adaptive physical education class. The students attend a high school in a suburban northern New Jersey school district. The two students chosen for this study have a documented diagnosis of autism and are placed in the adaptive physical education class at the high school. The adaptive physical education class is separate from the general physical education classes. All students in this adaptive physical education program have either a 504 plan or an Individualized Education Plan. The main focus of this study was the two students with autism in the adaptive physical education class.

The students were presented with surveys of their knowledge, attitudes, and social interaction in physical education as a pre-test and post-test. Following the pre-test the adaptive physical education students were placed in the general education physical education class. The results showed that both students improved and agreed that social interaction increased as the two classes were combined more often. Both of the students with disabilities grew in all aspects of the findings from the survey that included overall progress, knowledge of the unit of badminton, attitudes, and interaction.

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Chapter 1

Introduction

It is often claimed that physical activity produces benefits for one's social, emotional, and physical being. Taking part in physical activity has been shown to reduce the risk of heart disease and some cancers (Allender, Cowburn, & Foste, 2006). The U.S. Department of Health and Human Services recommends that young people aged six–17 years participate in at least 60 minutes of physical activity daily (Center for Disease Control and Prevention, 2015).

From elementary school to high school, public school education provides students with learning and physical disabilities the opportunity to participate in an adaptive physical education class. This type of education is created for students with disabilities to be able to benefit from active lifestyles similar to those students who participate in general education physical education classes. The adaptive physical education classroom includes accommodations for students with disabilities to reduce the discrepancy from their personal capabilities and their environment (Roth, 2016). Adaptive physical education is a direct special education service provided to all qualifying students. This program is carefully designed and modified to accommodate a learner with a disability, based on a comprehensive assessment, to give the learner the skills necessary for a lifetime of rich leisure, recreation, and sports experience to enhance physical fitness and wellness (Roth, 2016).

Physical Education has been a mandated part of overall education for all students, including students with disabilities. Students in general education do not experience the environment that those of adaptive physical education do and vice versa. Adaptive

physical education students are in a smaller classroom setting and each student's needs are directly met depending on the student's disability. Physical education has been established in a school setting because it is a basic component of the school curriculum and focuses on human and motor development acquired through knowledge and practice of physical activities (Tassitano, Barros, Tenório, Bezerra, Florindo, & Reis, 2010).

In most school districts general education physical education and adaptive physical education classes are provided separately. However, the current emphasis on the inclusion of students with disabilities in regular education classrooms has raised questions about the most effective setting for students with disabilities. Using inclusion does not always address the needs for a student with a disability unless the educational setting is the best possible fit for that student's needs. The process of inclusion is much more complex than adding students with disabilities into a regular education physical education setting. As stated in the Rehabilitation Act of 1973, students with disabilities should receive their education in the least restrictive environment and be educated with their typically developing peers to the maximum extent. This means that students with disabilities should only be removed from the general education environment when the nature or severity of the disability will not allow the student to benefit from the education program, even with the use of supplemental aids and supports (Rehabilitation Act, 1973).

Inclusion of adaptive physical education students in general education physical education could enhance the perspectives of both groups of students. The purpose of this study is to examine and expand current research on the effects of participation in a general education high school physical education class on the social interaction and

health and physical activity of high school students with disabilities who participate in adaptive physical education high school.

Research Problem

The purpose of this study is to answer the following question:

1. Will placement of high school age students with disabilities in a general physical education setting enhance their social interaction in the physical education class?
2. Will students' attitudes toward participation in physical education increase as a result of their participation?

This study focused on high school students in a public school district in Morris County, New Jersey. The study took place in the student's general education physical education class. This study was designed to explain the effects of social interaction enhancement of adaptive physical education students before, during, and after being placed in a general physical education class. The student's age range was from 15-17 years old. Social interaction enhancement was measured with teacher observation using a rating scale for each student's individual social interaction before, during, and after placement. Alongside the teacher observation, students had the opportunity to use the same rating scale to determine their improvements and achievements.

It was hypothesized that having students with disabilities in an adaptive and inclusive physical education setting would enhance social interaction with the general education students.

Key Terms

Adaptive Physical Education- is physical education which 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 (Adapted Physical Education National Standards, 2008).

Inclusive Education- when children with and without disabilities participate and learn together in the same classes (Public Broadcasting Service, 2012)

Implications

The physical education setting provides a good opportunity for students with disabilities to learn how to interact with general education students. Different from the normal classroom setting where the students with disabilities rely on a different curriculum or rate of learning new material, the physical education setting provides a good foundation for social interaction. In physical education, the students are communicating and moving with their peers during the day's activities. This would be the paradigm shift that enables the students with disabilities to learn how to socially interact with the general education students. This social interaction may be more difficult if even possible in a normal classroom setting. The goal is to provide all students with the best physical education classroom setting for students to grow and develop mentally, emotionally, and physically. The objective is for them to develop these skills through social interaction and inclusion.

Summary

Physical education is important for all students' health and well-being. Including students with disabilities in a general education physical education class could provide an opportunity for improved social interaction with general education students. Students will

have the ability to interact with general education students through physical education.

Teachers and students alike will have the opportunity to rate and track their progression through this process.

Chapter 2

Literature Review

When children and adolescents participate in the recommended level of physical activity, at least sixty minutes daily, multiple health benefits accrue (Center for Disease Control, 2010). Regular physical activity builds healthy bones and muscles, improves muscular strength and endurance, reduces the risk for developing chronic disease risk factors, improves self-esteem, and reduces stress and anxiety. Beyond these known health effects, physical activity may also have beneficial influences on academic performance. Physical education is set up in public schools to provide students with the opportunity to develop knowledge of health, create self-esteem, build strong interpersonal skills, and help improve a student's academic performance (Center for Disease Control, 2010).

A teacher's goal for his or her physical education classroom is centered on the students working mentally and physically during the class time. This goal set by the physical education teacher is provided to help students avoid the long-term negative impacts of physical inactivity. This long-term negative impacts are obesity and overweight, increased risk of diabetes, high blood pressure, high cholesterol, asthma, arthritis, and poor health status. Other results of physical inactivity are risks of dying prematurely, dying of heart disease, and developing diabetes, colon cancer, and high blood pressure (Center for Disease Control, 2010). By having students participate in a daily amount of sixty minutes of physical activity these negative factors can be avoided.

The benefits of physical education are endless for students in public schools. Physical education is designed for all students to learn, grow, and interact as a whole. The physical education classroom setting immediately establishes inclusion and collaboration

for a successful learning environment. This environment is the foundation for students to grow mentally and physically while interacting in a physical education classroom.

Social Interaction in Physical Education

Social interaction in schools is important for all students to have. During these social interactions students learn and establish a sense of “self” and what others expect of them. These social interactions provide students with the opportunity to learn appropriate social behaviors such as sharing, cooperating, and respect of others. In addition, while interacting with their peers, students learn communication, cognitive, and motor skills (Changnon, 2017). These opportunities for social interactions usually occur during play or physical activity with one another. This is the importance of inclusion in physical education for students with or without physical or mental disabilities.

Peer interaction can have a substantial impact on the lives of adolescents with disabilities. One often-cited benefit of inclusion is that students with disabilities can gain social interactions, particularly if such interactions are positive, frequent, meaningful, and if equal status relationships are encouraged and formed (Sherrill, Heikinaro-Johansson, & Slininger, 1994). During this research study, students with physical disabilities were recruited from school systems in a two-state region. Administrators at various elementary, junior high, and senior high schools in this region were contacted to obtain permission to interview students regarding their experiences in sport and physical education. Students were then interviewed regarding past and current sport and physical education experiences of students with physical disabilities. The results from this research discussed a range of experiences and emotions of these students. The two outcomes found from this study were that there was limited participation in activities and

negative emotional responses. The more inclusion for these students and participation implicated that the students would receive positive emotions.

However, social interaction among adolescents with intellectual disabilities and their general education peers typically occurs infrequently in secondary schools (Carter & Hughes, 2005). Therefore, encouraging students with disabilities and nondisabled students to play and participate in physical education together is an extremely important part of instruction in integrated schools. The students must have the opportunity to engage together if they are to become friends. These friendships will help the nondisabled student form positive, accepting attitudes toward persons who are disabled. In addition, the student who is disabled will have the opportunity to learn age-appropriate social skills (Carter & Hughes, 2005). These age-appropriate social skills will enhance a student's self-esteem and boost their self-confidence. Students will become willing to interact more in this type of environment and this will help them grow as a person. The skills that disabled students receive from the nondisabled students can help them benefit throughout their life.

Physical education provides an opportunity to promote these social interactions among all school students. If inclusion occurs in a physical education setting for students with disabilities and general education students, the positives will overpower the negative effects. Social interaction is the key component to the drive to promote physical education for all students to benefit from.

Adaptive Physical Education Students

Adaptive physical education is an individualized program including physical and motor fitness, fundamental motor skills and patterns, skills in aquatics and dance, and

individual and group games and sport designed to meet the needs of individuals. Adapted physical education is viewed as a subdivision of physical education that provides safe, satisfying, and successful experiences for students of varying abilities (Winnick, 2016). Through adaptive physical education, these programs can do a great deal to improve the lifestyle of a student with special needs. They can increase competency in gross motor skills, help to control obesity, improve self-esteem and social skills, encourage an active lifestyle, and maintain motivation in various areas of life (Winnick, 2016).

Through much of the research, it is evident that physical activity can enhance academic performance and cognitive function. The research reviewed by the CDC states that cognitive skills and motor skills appear to develop through a dynamic interaction. This interaction has shown that physical movement can affect the brain's physiology by increasing cerebral capillary growth, blood flow, oxygenation, growth of nerve cells, neurotransmitter levels, development of nerve connection, improved attention, improved information processing, enhanced coping, enhanced positive affect, and reduced sensations of cravings and pain (Center for Disease Control, 2010). However, for children with special needs, it is valuable for so many reasons, from providing an opportunity to build collaborative and social skills, to teaching individuals how to focus on specific goals and overcome obstacles. Parents and teachers are encouraged to find creative ways to implement reasonable accommodations to ensure that all students with special needs can be successful in physical education and the school environment (Winnick, 2016).

Inclusion in Physical Education Classes

It is evident that physical education is important in a student's life. Both general education physical education students and adaptive physical education students reap benefits from both classroom settings. As discussed previously the benefits of each of these classrooms is immense. Students are gaining social interaction and physical activity daily during these classroom experiences.

Students in both classrooms could also benefit from interacting one another in an inclusion setting. Inclusion is truly a collaboration of both groups through a student-driven process which helps students with disabilities learn life skills and grow from the opportunities of being around their peers. This collaboration broadens the horizons for all students involved not the students with disabilities. This classroom setting is like no other in general education, which is why it is common that inclusion occurs in physical education.

An example of the importance of inclusion in physical education for students with disabilities is a research study by Butler in 2004 (Butler, 2004). This study examined the social interactions of students with and without disabilities in a general physical education (GPE) program. Participants were a girl with Down syndrome and mental retardation, a boy with severe juvenile scoliosis, and their 16 classmates (9 females, 7 males) without disabilities at a rural middle school. The data was gathered from nonparticipant observations, a behavioral coding system, and interviews. Butler found that the students with and without disabilities engaged in mostly positive (e.g., friendly, cooperative) yet infrequent social interactions. Overall findings lend support to inclusive GPE practices (Butler, 2004).

This research study supported the fact that inclusion for students with and without disabilities is developed in physical education. During this study it was found that social interactions did occur with all students alike during structured physical activities. These interactions were described as pleasant, friendly, respectable, meaningful, and focused on common goals. During these structured physical activities all students had favorable attitudes towards inclusive physical education and their classmates without disabilities. In conclusion, it was found that these structured activities are not the sole reason for the students' favorable interactions. From this research it is believed that these favorable interactions occurred from prior contact and familiarly with one another from previous classes. From these findings it has led to understanding there is partial support to the theory of structured contact variables and to social inclusion (Butler, 2004).

Cognitive Strategies for Development in Physical Education

As all students benefit from the physical activity aspect of physical education, students can also grow cognitively. These cognitive aspects are developed in a group setting, partner work, or individual work. No matter the physical or mental disability a student will be able to develop and grow from physical education in some capacity (Anderson, 2017).

Cognitive strategies are used in education to process the information that the student has learned and relate it to existing knowledge and skill. There are many different strategies to use in physical education to formulate an understanding of a student's knowledge. These strategies could be used in the general education classroom setting to daily life situations. These cognitive used in physical education could be self-talk, imagery, and goal setting (Anderson, 2017). Self-talk can be used in physical education

as an instructional and motivational tool. This is used during performance, motor skill, and personal goal setting. Imagery is another cognitive learning strategy that a student to use to paint of picture of the physical activity at hand. This will help a student walk through the skill in their mind and try to demonstrate that skill as portrayed in their mind. This helps for consist practice of the skill and overall growing development. Lastly, goal setting in physical education is most important out of the first cognitive strategies that are suggested for all students. Goal setting is the fundamental component for the student's growth and development in the physical education classroom.

Summary

It is evident that a high-quality health and physical education program helps students succeed in life and this is the base of the importance of physical education in public schools. The benefits that students receive from adaptive physical education to general education are endless. The combination of inclusion in a physical education classroom setting for both classes would be rewarding. Students will be able to use cognitive strategies to progress in this type of physical education classroom setting.

Chapter 3

Methodology

Setting and Participants

This study included four high school students—two students in a tenth grade general physical education class and two students in tenth grade in an adaptive physical education class. The students attend a high school in a suburban northern New Jersey school district. The school district contains seven schools, 5 elementary schools, 1 middle school, and one high school. There are a total of approximately 4,026 students in the district. The elementary school includes students in preschool through fifth grade, the middle school includes students in grades sixth through eighth, and the high school includes grades ninth through twelfth. The typical school day at the high school runs for seven hours. The amount of actual instructional time is six hours with an hour for lunch during the school day.

Two of the students chosen for this study have a documented diagnosis of autism and are placed in the adaptive physical education class at the high school. The adaptive physical education class at the high school is separate from the general physical education classes. All students in this adaptive physical education program have either a 504 plan or an Individualized Education Plan for their diagnosis of their disabilities or disorders. The main focus for this study is on the two students with autism in the adaptive physical class.

Participant 1 is a tenth grade Caucasian, female student who is currently receiving special education and has an Individualized Education Plan (IEP). *Participant 1* is eligible for special education services under the category “Autism Spectrum Disorder”.

She has a documented communication difficulty and receives speech and language therapy. Participate 1 receives instruction for English, Mathematics, Science, and History in a resource room setting. She participates in the Adaptive Physical Education class as well. Participate 1 struggles when having in class support in a general educational setting. She struggles deeply with communication inaction with other and expressing her feelings/ emotions.

Participant 2 is a tenth grade Caucasian, male student who is currently receiving special education and has an Individualized Education Plan (IEP). Participate 2 is eligible for special education services under the category “Autism Spectrum Disorder”. He has a documented communication and behavioral difficulty. With this he receives speech and language therapy along with occupational therapy. Participate 2 receives instruction for English, Mathematics, Science, and History in a resource room setting. He participates in the Adaptive Physical Education class as well. Participate 2 struggles with performing age-appropriate tasks and receives help for mental health/ learning services.

Procedure

The intervention was implemented over a ten-week period from February 2017 to April 2017. Participants 1 and 2 (autistic students in adaptive physical education) met 5 times per week with their adaptive physical education class. Both classes (adaptive physical education and general physical education) learned the same basic skills, techniques, and strategies for the activity of badminton in their given classes with their given physical education teacher.

During the first week, all four students were active in their given physical education classes. The class setting had not changed for these student groups, as they were still participating and active with their same physical education classes. At this time the pre-test was administered to learn the activity and the skills needed to participate in the physical education class activity of badminton. The pre-test administered by myself and the physical education teachers included a survey that measured the students' knowledge, attitudes, and social interaction. This survey was given prior to the intervention:

Survey Worksheet for Students	
Name: _____	Date: _____
Directions: Questions #1-2 are Multiple Choice. CIRCLE your answer.	
1. How many players can be composed on a badminton court in our class?	
A. 1 B. 2 C. 3 D. 4	
2. What equipment is needed for this activity?	

Figure 1. Survey

<p>A. Racket</p> <p>B. Birdie</p> <p>C. Gloves</p> <p>D. Both A and B</p>
<p>Directions: Questions #3-4 are Rating Scale. CIRCLE your answer</p>
<p>3. Do you talk and interact with everyone in your physical education class throughout the class period?</p>
<p>A. Most of the time</p> <p>B. Some of the time</p> <p>C. Never</p>
<p>4. Your physical education class is an open classroom setting that allows you to move around and talk to different students, unlike a regular classroom setting (desk, chair, blackboard, smartboard, etc.)?</p>
<p>A. Most of the time</p> <p>B. Some of the time</p> <p>C. Never</p>
<p>Directions: Questions #5-10 are Open Ended. WRITE your answer out and be as specific as possible.</p>
<p>5. Are you looking forward to the next few weeks with the new badminton unit? Why?</p>
<p>6. How do you feel physical education makes social interaction possible? As opposed to other classroom settings that you are a part of.</p>

Figure 1. (Continued)

7. What makes you feel comfortable in a physical education classroom setting?
8. How does badminton made you physical active? Name skills or movements.
9. Name what you have learned in physical education, aside from playing badminton or other unit activities?
10. How is physical education important to you and the interaction with others in the high school? Explain.

Figure 1. (Continued)

The survey had both qualitative and descriptive elements. The student survey formation of the study included multiple choice questions, a rating scale, and open ended questions. The purpose of the student survey was to chart the growth, development, and justification of combining adaptive physical education and general education physical education students for social interaction enhancement.

Intervention

After the pre-test and first week of learning the activity of badminton, the adaptive physical education students were placed in the general education physical education class. Participates 1 and 2 were placed in this class setting three times a week and the other two days of the week they were with their regular adaptive physical education class. During this time both student subject groups had the ability to interact during class, activity game play, and group discussions at the end of each class period. The social interaction of these student was evaluated using the survey assessment and

teacher observation. At the end of the eight week unit of badminton, the students returned to their given classes for the post-test. This post-test was conducted by myself and the physical education teachers. Participates 1, 2, 3, and 4 were all documented during this process.

Variables

The independent variable for this was study was the placement of students with disabilities in an inclusive physical education class. The dependent variables for this study were the student' knowledge of the physical education unit of badminton, their attitudes towards general physical education class, and their social interaction.

Chapter 4

Results

Summary

This study, focused on the social interaction of high school age students with disabilities in a general physical education setting. Four students participated in the study- two general physical education students and two adaptive physical education students. The research questions to be answered were:

1. Will placement of high school age students with disabilities in a general physical education setting enhance their social interaction in the physical education class?
2. Will students' attitudes toward participation in physical education increase as a result of their participation?

The study began with all four student participates students completing a pre-assessment created by the researcher and the physical education teachers. The pre-assessment contained ten questions that included multiple choice, rating scale, and open-ended questions. The assessment had to be completed by the students before starting the eight week badminton unit and there was no time limit for the students to complete this except they had to complete it by the end of the class period that the teacher handed them the assessment.

Results

Table 1 shows the pre and post assessment results for the adaptive physical education students. The assessment was based on a 10 question survey.

Table 1

Pre and Post Assessment Results for Overall Progression on Assessments

	<u>Pre-Assessment</u>	<u>Post-Assessment</u>	<u>Difference</u>
Student 1	60	90	30
Student 2	70	93	23
Mean	65	91.5	26.5

The mean pre-test intervention score for the two students was 65. After the pre-test was given, the intervention (adaptive physical education teacher) teacher included the adaptive physical education students into the general education physical education classroom. Students were involved in the same unit that they learned in their adaptive physical education class setting, which was badminton. The general physical education teacher conducted the badminton unit activity for the day. This included warmups, game play of badminton in teams, and cool down/ class discussion. At the end of eight weeks a post-test was given as a closing assessment of the students' growth during this time period. Table 1 shows the post-test scores for the control and intervention groups. The students had a mean score of 91.5%. The difference from the pre-assessment was 26.5%. This indicates that both students improved.

Table 2 shows the results for students' knowledge of badminton. Prior to the intervention each student answered only one of the three questions correctly. Following the intervention, both students answered all three questions correctly.

Table 2

Pre and Post Assessment Results for Knowledge of Badminton (Questions 1-3)

	<u>Pre-Assessment</u>	<u>Post-Assessment</u>	<u>Difference</u>
Student 1	1	3	2
Student 2	1	3	2
Mean	1	3	2

Table 3 shows the results for students' attitudes towards physical education. Prior to the intervention each Student 1 answered only one of the three questions correctly. Student 2 answered 2 questions correctly. Following the intervention, Student 1 answered one more question correctly and Student 2 answers remained the same.

Table 3

Pre and Post Assessment Results for Attitudes (Questions 4-6)

	<u>Pre-Assessment</u>	<u>Post-Assessment</u>	<u>Difference</u>
Student 1	1	2	1
Student 2	2	2	0
Mean	1.5	2	1

Table 4 shows the results for students' interaction during physical education. Prior to the intervention each Student 1 answered two of the four questions correctly. Student 2 answered three of the four questions correctly. Following the intervention, both students answered all four questions correctly.

Table 4

Pre and Post Assessment Results for Interaction (Questions 7-10)

	<u>Pre-Assessment</u>	<u>Post-Assessment</u>	<u>Difference</u>
Student 1	2	4	2
Student 2	3	4	1
Mean	2.5	4	1.5

Conclusions

This study was established to create a deeper understanding of social interaction in adaptive and general physical education from both student groups. The students were presented with surveys to document the effects of this study. The two students who participated were two students on the autism spectrum. The results showed that both students grew and agreed that social interaction would increase as if the two classes were combined more often.

Chapter 5

Discussion

Summary

This study focused on the social interaction of high school age students with disabilities in a general physical education setting. The study included two students in tenth grade in an adaptive physical education class. The students attend a high school in a suburban northern New Jersey school district. The two students chosen for this study have a documented diagnosis of autism and are placed in the adaptive physical education class at the high school. The adaptive physical education class is separate from the general physical education classes. All students in this adaptive physical education program have either a 504 plan or an Individualized Education Plan. The main focus for this study was on the two students with autism in the adaptive physical education class.

The purpose of this study was to answer the following question:

1. Will placement of high school age students with disabilities in a general physical education setting enhance their social interaction in the physical education class?
2. Will students' attitudes toward participation in physical education increase as a result of their participation?

The students were presented with surveys of their knowledge, attitudes, and social interaction in physical education as a pre-test and post-test. Following the pre-test the adaptive physical education students were placed in the general education physical education class. The results showed that both students improved and agreed that social interaction increased as the two classes were combined more often. Both of the students

with disabilities grew in all aspects of the findings from the survey that included overall progress, knowledge of the unit of badminton, attitudes, and interaction.

Limitations

During the study, both students displayed increases in the areas of knowledge of the unit of badminton, attitudes, and interaction. These effects were dependent on the students as they were placed in a general physical education setting playing the same activity as their previous classroom setting in adaptive physical education class. The student's social interaction, attitudes, and knowledge of the unit of badminton were only based on a survey over a ten week period. If time allowed, a more in depth study could take place regarding these three aspects that were measured. Social interaction could also be the main focus of this study, unlike including attitudes and knowledge.

Practical Implications

The students with disabilities in this study experienced an intervention that placed them in a general education physical education class where they had the opportunity to learn and interact with non-disabled students. Students experienced success in all three aspects of the study. This seemed to develop weekly for each student and they both gained the most out of their interaction with the general physical education class. The intervention as carried out by the author and the physical education teacher and the students executed completing the surveys. The students asked to participate more in general physical education classes and combine more often, as they found not only did they grow physically but socially as well with others in the high school. It is impressive that the students picked up on this over a short period of ten weeks on their own. It truly

defines the purpose of this study and why it is important to have these students interact with others in the high school.

Future Studies

Future research should study the effectiveness of placing adaptive physical education students in a general physical education setting focusing on the student's attitudes and social interaction. This study should take place over a longer period of time, instead of only ten weeks. The study should pinpoint different types of students and their special needs. With this future study taking place it should develop a better measuring tool of social interaction including a control group for the study. By placing a control group into the study one will be able to see how the other students in the intervention are growing. The control group should consist of students with the same special needs for research purposes. I believe that this would create a better understanding and research of the study.

Conclusion

This study focused on the effects of placement of high school age students with disabilities in a general physical education setting. The results showed that both students displayed increases in the areas of knowledge of the unit of badminton, attitudes, and interaction. I concluded that this study was successful as the two students benefited from social interaction, attitudes, and knowledge when being placed in a general education physical education setting.

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