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Graduate Studies

NONDISABLED ELEMENTARY STUDENTS' ATTITUDES TOWARD PERSONS WITH DISABILITIES

A Manuscript Style Thesis Submitted in Partial Fulfillment of the Requirements for the

Degree of Master of Science in Exercise and Sport Science

Katie D'Andrea

College of Science and Health
Adapted Physical Education Teaching

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NONDISABLED ELEMENTARY STUDENTS' ATTITUDES TOWARD PERSONS WITH DISABILITIES

By Katie D'Andrea

We recommend acceptance of this thesis in partial fulfillment of the candidate's requirements for the degree of Master of Science in Exercise and Sport Science-Physical Education Teaching-Adapted Physical Education Teaching Concentration.

The candidate has completed the oral defense of the thesis.

Zack Beddoes, Ph.D. — 6.26.19
Thesis Committee Chairperson — Date

Richard Mikat, Ph.D. — 6-26-19
Thesis Committee Member — Date

Brock McMullen, Ph.D. — 6-26-19
Thesis Committee Member — Date

Thesis accepted

Meredith Thomsen, Ph.D. — 9-20-2019
Director of Graduate Studies — Date

ABSTRACT

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The purpose of this study was to determine whether implementing a disability awareness unit in a general physical education curriculum positively influences nondisabled students' attitudes toward persons with disabilities (PWD). A convenience sample of elementary students in fourth- , fifth- and sixth- grade from a parochial school were used for this study and their attitudes toward PWD were analyzed. Data collection was completed through observations, documenting participant comments, and the completion of a survey before, during, and after the intervention. The survey composed of three separate subscales- Perceived Capabilities, Behavioral Intentions, and Impact of Inclusion. Each subscale consisted of questions related to the capabilities of PWD as well as their behaviors, inclusion in school, and in the community. Themes established from this study included Inclusion, Contact Theory, and Maturity Level. Findings portray that interventions used to alter students' perceptions may be more successful if implemented throughout the school year with additional opportunities for exposure to PWD in a variety of contexts. Further research should be done on the effect of interventions on attitudes. Specifically, the intervention should be multi-dimensional and allow exposure to PWD and occur in comprehensive settings over a long period of time.

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INTRODUCTION

Persons with disabilities have been subject to negative attitudes and stereotypes which can significantly affect their quality of life (Hutzler, 2003). Hutzler (2003) suggests that persons with disabilities (PWD) have been subjected to negative attitudes and discrimination since the 1900s. Other scholars accord with these reports and reaffirm the low perceived value and prejudice PWD often endure (Akrami, Ekehammar, Claesson, & Sonnander, 2006). Since the 1930s, scholars have inquired about the reasons for negative attitudes toward PWD (Tripp, French, & Sherril, 1995). However, it wasn't until the 1950s that PWD began to be accepted and valued and receive targeted services in the education setting (Hutzler, 2003).

As more services became available for PWD in the 1950's, adapted physical education (APE) was introduced. Adapted physical education is designed for students who require support or do not feel safe in the general physical education setting. The acquisition of APE in schools has been considered paramount to the success of students with disabilities (SWD; Hutzler, 2003) and the opportunity for SWD to interact with their non-disabled peers. In the 1970s, APE was officially integrated into the general physical education setting (Tripp, et al., 1995). Hutzler (2003) defines this inclusion as "allocating services, changing attitudes, and developing a sense of responsibility" which means that general education classes must be prepared to include this student with the necessary and appropriate support.

Hutzler (2003) reported that increased opportunities for inclusion in education facilitated more positive attitudes and awareness toward PWD. Inclusion has likewise been reported to support independence, decision-making, and self-worth in PWD (Hutzler, 2003). Scholars suggest that moving toward an independence-driven framework allows PWD to be autonomous in their learning while simultaneously supporting attitudinal changes in their peers.

Although attitudes toward students with disabilities (SWD) have gradually become more positive in nature, there is still much work to be done (Akrami et al., 2006). Some scholars suggest that language modification (e.g., mental retardation to intellectual disability) has masqueraded as substantive change relative to attitudes toward SWD. Akrami and colleagues (2006) maintains that underlying prejudice toward SWD is still the norm but that disability sport and other simulation exercises may increase awareness and subsequently decrease negative stereotypes.

Inclusion

According to Hutzler (2003), the primary principle of inclusion is holding a high value on diversity in a group of people. Inclusion has been defined to include "allocating for services, changing attitudes, and developing a sense of responsibility, suggesting that instead of getting a child with a disability ready for the regular class, the regular class gets ready for this child" (Hutzler, 2003, pg 348). Furthermore, Davis and colleagues (2012) suggest that inclusive practices within the physical education setting can lead to positive changes within PE, and in the community. Hutzler believes that studying attitudinal shifts can assist in measuring the environmental limitations developing from negative feedback that professionals and peers express toward inclusion (Hutlzer, 2003).

The Sport Education Model (SEM) is a viable model for complementing a disability awareness curriculum within the general physical education (GPE) setting and can allow for inclusion in a variety of ways (Foley, Tindall, Lieberman, & Kim, 2007). Foley and colleagues (2007) found that the SEM can be beneficial in breaking down the barriers that may attend more traditional physical education curricula. When developing inclusion opportunities for SWD in the GPE setting, creating an environment which facilitates positive interpersonal interactions is prerequisite to creating attitudinal change (Keith, Bennetto, & Rogge, 2015).

According to research, when children are integrated in an inclusion setting, students without disabilities display significantly enhanced positive attitudes toward SWD (Tripp, French, & Sherrill, 1995). Consequently, children in segregated settings that do not have peers with disabilities in their classes tend to present more negative attitudes toward persons with disabilities (Tripp, et al., 1995). However, the conditions of the inclusion environment must be considered. Tripp and colleagues state that the positivity or negativity of attitudes can be altered depending on the conditions, meaning that positive conditions often produce positive attitudinal shifts, while unfavorable circumstances tend to produce negative attitudinal shifts (Tripp, et al., 1995). More specifically, better environmental conditions will increase positive interactions between individuals with and without disabilities as well as foster positive attitudes toward persons with disabilities (Tripp, et al., 1995).

Contact Theory

Several scholars accord (Keith, Bennetto, & Rogge, 2015) that the quality of interactions between nondisabled students and SWD is critical. Research suggests that it may not just be inclusion that is likely to alter negative attitudes, but exposure to PWD in general (Keith, et al., 2015). Exposure has been shown to foster positive attitudes toward persons with disabilities, as well as provide experiences that include positive interactions between those with and without disabilities. Not only is it important to promote this exposure as educators, but it is critical to assure that it will lead to quality experiences for those with and without disabilities (Hutzler, 2003).

Hutzler (2003) defined contact Theory as a learning-behavioral theory insinuating that prejudice and stereotypes toward persons with disabilities can decrease through positive contact with individuals with disabilities. Archie and Sherrill (1989) explored the attitudes of fifth- and sixth- grade students toward children with disabilities to further investigate the influence of exposure on attitudinal changes. They discovered that participation in activities where students have a mutual interest and understanding improved the level of acceptance toward persons with disabilities in the general physical education setting (Archie, et al., 1989). That being observed, it may be imperative to create an equal playing field for all students while maintaining full engagement and participation alongside their peers. Disability sport can be a useful method for creating an equal playing field and reducing prejudice as well as negative attitudes toward persons with disabilities (Archie, et al., 1989).

The purpose of this study is to determine whether implementing a disability awareness unit in a general physical education curriculum positively influences

nondisabled students' attitudes toward persons with disabilities. Specifically, the following research questions will be examined in this study:

1. Does implementing a disability awareness unit in a general physical education curriculum influence non-disabled students' attitudes toward PWD?;

2. What specific elements of the disability awareness unit were most influential to changing student attitudes?

METHOD

Participants

A convenience sample of nondisabled elementary students from a local parochial school were utilized for this study. Participants included (n = 40) elementary aged students ranging from 9-12 years old. None of the participants had any documented disabilities known by the researcher. A grade level breakdown for the participants is described in Table 1. The fifth- and sixth- grade students participated in their general physical education class together three times per week. The students in fourth grade also have physical education three times per week.

Operational Definitions

The following terms will be used in this study:

Attitude- A persons own thought or idea about something that is constructed from emotions and knowledge or lack thereof, which can predispose them to actions or behaviors toward an individual or specific population (Hutzler, 2003).

Contact Theory- A learning-behavioral theory insinuating that prejudice and stereotypes toward persons with disabilities can decrease through positive contact with individuals with disabilities (Hutzler, 2003).

Disability Awareness Unit- A combination of lessons that utilize guest speakers, video footage of disabled athletes, in combination with simulation exercises to increase non-disabled persons awareness of the extensive abilities of individuals with disabilities in physical activity.

Perception- The way an individual person thinks about something or someone based on their own beliefs, thoughts, experiences, knowledge, and values.

Persons with Disabilities (PWD)- Individuals with one or more documented disabilities which can affect them physically, developmentally, intellectually, sensory, or a combination.

Simulation Exercises- Activities utilizing a variety of equipment, restrictions, and environments that allow individuals to perform movements and physical activity as if they had a specific disability (i.e. sit volleyball, goalball, scooter handball).

Data Collection

The survey utilized to measure nondisabled elementary students' attitudes toward persons with disabilities consisted of the following subscales:

- Perceived Capabilities Scale
- Behavioral Intentions Scale (Academic and Nonacademic)
- Impact of Inclusion Scale.

Questions on the survey assessed students present and prior contact with PWD, behaviors toward PWD, and feelings about inclusion of PWD. The Perceived Capabilities subscale consisted of 16 items assessing nondisabled students' perceptions of the capabilities of PWD. The scale lists skills or tasks that are common to everyday living and was answered on a dichotomous yes/no scale (1 = yes, 0 = no). The Behavioral Intentions

subscale consisted of 13 items related to the students' intentions to interact with PWD. Seven of the items were related to activities inside school and six of them were focused on activities outside of school. For all 13 items, students were asked to answer on a 4-point Likert scale, with 0 (*no)*, 1 (*probably no)*, 2 (*probably yes)*, 3 (*yes)*. The Impact of Inclusion subscale consisted of 5 items measuring the expectations that nondisabled students had in regard to the impact that inclusion of SWD would have on their class. These questions were also answered on the 4-point Likert scale mentioned above.

Data Analysis

Statistical analyses were performed using JASP version 0.9.2 (JASP Team, 2018). Dependent variables were observed as normal via Shapiro-Wilk. Descriptive statistics followed normality confirmation with the unit of analysis performed at the student level. Individual survey scores were generated by calculating the sum score of items for each of the three scales in each survey. Sum scores were used for subsequent analyses on each of the survey measures across time points for the purpose of exploring potential student attitudinal differences throughout the intervention. A RM ANOVA was utilized to answer the research question, "Does implementing a disability awareness unit in a general physical education curriculum influence nondisabled students' attitudes toward persons with disabilities?". The effect of the independent variable (disability awareness unit) on each of the dependent variables across three timepoints (pre-, mid-, post-) were examined. Between-subjects variances were examined to ascertain potential grade-level differences. Tukey Post-hoc comparisons were used to identify differences among specific time points and grade levels.

RESULTS

Before the administration of the survey, participants indicated whether they have met a person with a disability (PWD) and if they have a friend or a family member with a disability. Out of the 17 students in fourth grade, (n = 14) had met a PWD before while only (n = 10) had a friend or family member with a disability. Among the eight students in fifth grade, (n = 7) had met a PWD and only (n = 6) had a friend or family member that had a disability. Out of the 15 students in sixth grade, (n = 14) had met a PWD where only (n = 11) had a family member or friend with a disability (see Table 1). Descriptive statistics by grade level and across timepoints for each of the dependent variables are displayed in Table 2.

For the Perceived Capabilities subscale of the survey, RM ANOVA within-subjects results revealed no significant difference across any of the timepoints (p = 0.183). The RM ANOVA between-subjects effects for the Perceived Capabilities subscale revealed a significant difference between grades, where p = 0.02. A Tukey Post Hoc comparisons test was conducted to determine specifically where there was a significant difference between grades. The post hoc indicated significant difference between grades four and six where $p < 0.05$ (p = 0.046). Although $p < 0.05$ statistically shows a significant difference between grades four and six, this is not clinically significant enough to make concrete conclusions.

The RM ANOVA within-subjects effects for the Behavioral Intentions subscale indicated no significant difference across time points (p = 0.964) as well as no interaction between time and grade level (p = 0.675). The RM ANOVA between-subjects effects for the Behavioral Intentions subscale also revealed no significant difference between grade

levels ($p = 0.184$). Since there was no significant difference found for the behavioral intentions subscale, it was unnecessary to refer to the Post Hoc test results.

The RM ANOVA within-subjects effects for the Impact of Inclusion subscale revealed no significant difference across time points ($p = 0.605$) as well as no interaction between time and grade level ($p = 0.673$). The RM ANOVA between-subjects effects also indicates no significant difference between grade levels ($p = 0.086$). It was not necessary to refer to the Post Hoc test results for the Impact of Inclusion subscale.

Overall, the results from the RM ANOVA within-subjects and between-subjects for each of the three scales within the survey suggest that the intervention did not have a significant effect on student dispositions and attitudes toward SWD. It appears that time did not play a role in the results and there were no clinically significant interactions between time and grade throughout. The grade levels did show a significant difference under the Perceived Capabilities subscale; however, the difference is too trivial for practical significance. No time by grade interactions were observed on any of the scale means.

Table 1. Subject Characteristics

Table 1. Subject Characteristics

Grade	n	Male	Female	Met PWD	Friend/Family WD
4	17	10	7	14	10
5	8	2	6	7	6
6	15	7	8	14	11

Note: PWD- Person with a disability

Table 2. Pretest, Mid-test, and Posttest Results

Table 2. Pretest, mid-test, and posttest results of the three scales (Mean ± SD).

	Pretest			Mid-test			Posttest		
Grade	PC	BI	II	PC	BI	II	PC	BI	II
4	12.38 ± 2.87	28.31 ± 7.54	9.88 ± 2.45	12.41 ± 2.53	26.71 ± 6.50	10.41 ± 2.09	12.12 ± 2.93	27.18 ± 6.88	10.53 ± 1.74
5	14.00 ± 2.33	29.63 ± 4.10	9.13 ± 2.42	14.63 ± 1.41	30.00 ± 5.68	8.13 ± 2.42	14.88 ± 1.36	31.00 ± 6.37	8.63 ± 3.89
6	13.64 ± 2.82	30.50 ± 7.23	9.43 ± 2.28	14.64 ± 1.55	31.43 ± 5.46	8.93 ± 1.69	14.50 ± 1.51	32.14 ± 8.38	9.50 ± 2.35
All	13.18 ± 2.77	29.39 ± 6.75	9.55 ± 2.33	13.67 ± 2.26	29.08 ± 6.22	9.41 ± 2.19	13.54 ± 2.52	29.74 ± 7.54	9.77 ± 2.55

Note: PC- Perceived Capabilities, BI- Behavioral Intentions, II- Impact of Inclusion

DISCUSSION

The purpose of this study was to determine whether the implementation of a disability awareness unit in a general physical education curriculum positively influenced nondisabled students' attitudes toward persons with disabilities. The results did not support a meaningful change in student attitudes across the intervention. This may be due to the low *n* value of participants used in this study which could have made it difficult to observe significant attitudinal changes, if any should occur. With that said, there appeared to be a slight difference between grades four and six; however, this change is too trivial to make concrete conclusions related to the interventions effect on any attitudinal shifts. The reasoning for this marginal change may be attributable to the level of maturity between fourth- and sixth- grade students.

The lack of attitudinal shifts of the participants from this study might also be partially explained through the lens of Contact Theory. Contact Theory posits that greater exposure to PWD can lead to significant changes in both positive and negative attitudes (Ferrara, Burns, & Mills, 2015). Likewise, Ferrara and colleagues (2015) suggested that the presence of highly structured contact is most effective in increasing positive attitudes. It might be unreasonable to expect an attitude shift in elementary children simply through participation in a disability sports unit. Perhaps disability awareness is not learned in the abstract or acquired in decontextualized settings apart from the consistent interaction of SWD and their non-disabled peers (Findler, et al., 2007). Contact Theory places the highest premium upon direct exposure to PWD in order to facilitate meaningful attitudinal changes (Tripp, et al., 1995). With that said, perhaps if the participants in this

study were provided with practical experiences with PWD in a PA setting, their attitudes towards PWD would have increased.

This research, though revealing no clinically significant results, produced some potentially meaningful findings. First, the answers on the Perceived Capabilities (PC) subscale which, measures more general and global attitudes, changed the least of the three subscales across the three intervention timepoints. The PC subscale is designed to measure a stable construct of students' attitudes toward PWD and what they're capable of. Perhaps it is most difficult to alter an individual's general attitudes regarding PWD apart from frequent and authentic experiences with SWD. Notably, the Behavioral Intentions (BI) and Impact of Inclusion (II) subscales, which measure more situational and malleable attitudes, showed a slight but non-significant change across the timepoints. In any case, attitudes relative to PWD are multidimensional, complex and difficult to measure (Antonak & Livneh, 2000). Interventions can be of service to students specifically for modifying attitudes toward PWD; but perhaps to reconstruct an individual's general perceptions toward PWD, a much more comprehensive intervention is necessary that can allow for increased exposure to PWD across a variety of contexts.

The concept of inclusion is another theme discussed in research that could have been the potential reasoning for the lack of nondisabled students changed attitudes toward PWD. The participants within this study are all general education students in a parochial school who do not learn alongside peers with disabilities. According to Tripp and colleagues (1995), one of the benefits that is likely to derive from the integration of students with disabilities into general physical education settings is an increase in positive attitudinal changes of nondisabled students in the class which can be further supported by

Contact Theory. Conversely, integrating SWD into general physical education can also lead to negative attitudes if it is an unpleasant environment and if unfavorable tension or competition is present (Tripp, et al., 1995). In order to create positive attitudinal changes in an inclusion setting, the research suggests that we must promote meaningful interactions between persons without disabilities and PWD for a sustained amount of time in order to have a practical significance related to their attitudes. The concept of inclusion will allow for meaningful advancements of nondisabled students attitudes towards PWD, resulting from repeated exposure and meaningful social interactions with PWD in a safe environment.

Although inclusion can be a useful tool for improving nondisabled students' attitudes toward SWD, negative attitudes can serve as a barrier for inclusion to be successfully implemented within a school. This makes inclusion a critical concept to be addressed school wide throughout all curricular areas. Before inclusion can be implemented successfully, the culture of a school may first need to be considered in order to address the negative attitudes that could potentially hinder the success of inclusion. School-wide assemblies, field trips, and volunteer opportunities are a few ways that attitudes towards PWD may be influenced. Furthermore, it will take more time to change the attitudes of an entire school population as opposed to a small class or individual students. Therefore, gaining the support and effort from all faculty and community resources is critical to expedite the process and alter the school culture.

Implications

This study provides preliminary implications for general and adapted physical education teachers. Interventions used for disability awareness may be more effective at

altering student attitudes toward SWD if they are multifaceted and provide students with the opportunity to analyze barriers and current issues that PWD face (Foley, et al., 2007). Research supports the idea that incorporating disability sports in the general physical education curriculum will allow nondisabled students to experience competitive play and encourage positive attitudes toward PWD if implemented throughout the school year (Davis, et al., 2012).

Throughout this intervention, the researcher took notes on specific comments made by nondisabled students, negative or positive, related to their attitudes toward PWD. A few examples of comments made by students include, “How do people that are deaf and blind communicate?” and “It’s scary to be blindfolded and move around using human guide.” Nondisabled students became more analytical throughout the disability awareness unit and began questioning the attitudes that were previously instilled in them. Student’s comments during the unit suggested that they were experiencing the beginning stages of attitudinal shifts. Given the multifaceted nature of student attitudes toward SWD, capturing student voices through subsequent interviews and other qualitative methods may be insightful in evaluating the effects of a disability unit on student attitudes toward SWD.

Limitations

Participants were derived from a convenience sample of general physical education students in a parochial school. The sample size was small, where the researcher was limited to one class per grade level that was provided with the intervention and surveys. Furthermore, each grade level consisted of a small number of students ranging from eight to 17 total. Additionally, the fifth-grade students participated in GPE with the

sixth graders due to the small number of fifth graders (n = 8). Lastly, the research for the study was conducted in a relatively uncontrolled setting (e.g. local parochial school).

CONCLUSION

This study resulted in a few different conclusions related to attitudes toward PWD and disability awareness interventions. First, though not included in the data set, student comments indicated a possible change of attitude toward PWD. Furthermore, their comments support an increase in inquisitiveness in regard to what it's like to live with a variety of different disabilities. Secondly, this study incorporated a variety of wheelchair sport simulation activities involving scooters. When the nondisabled students were given the opportunity to utilize sport wheelchairs for a few classes instead of the scooters, their engagement increased. On the contrary, the results from this study and the literature that was reviewed provide supporting evidence that attitudes toward PWD are more likely to change with the use of a comprehensive disability awareness plan that is embedded into the general education curriculum and allows for students to participate alongside their peers with disabilities.

Lastly, the students in this study answered survey questions that were generalized to all disabilities. In turn, the student's struggled to answer some of the questions without explaining their answers in the margins. With that said, it is critical to consider the maturity of the participants when assessing attitudes toward PWD.

Suggestions for Future Research

After analyzing the literature related to non-disabled students' perceptions of persons with disabilities and completing this research, it is clear that there is a need for more exploratory research. One recommendation would be to study in detail the influence

that gender has on attitudes toward PWD as well as what causes males and females to have different attitudes toward persons with disabilities. Also, further comparing the difference in attitudes toward persons with disabilities throughout a spectrum of ages would be a worthy future research topic.

Additionally, Hutzler (2003) states that "intervention studies relating to peers' attitudes toward children with disabilities are still rare and need increased attention" and there is further research to be done to develop effective interventions. Additional theories should also be tested and applied to Contact Theory to further examine potential methods for changing attitudes toward PWD (Hutzler, 2003). With that said, since research suggests that attitudes are multidimensional, meaning that the interventions and surveys utilized to measure them should also be multidimensional. Further research could address this by not only providing surveys but interviewing participants and coding the data in addition.

Others believe that research should be more focused on other aspects of this topic, such as the many scales to choose from for measuring attitudes toward persons with disabilities. Researchers should put greater emphasis on revising and updating older scales as oppose to creating new scales altogether (Antonak & Livneh, 2000). Antonak and Livneh (2000) also suggest that future research should illustrate specific disabilities being studied in their samples rather than giving broad descriptions. Additionally, studies could be done to determine specifically on attitudes toward persons with 'invisible' disabilities as oppose to obvious disabilities.

Research should also be done regarding how persons express their attitudes. For example, it might be beneficial to study verbally expressed attitudes compared to written

expressed attitudes and determine if there is a difference between the two communication methods in regard to attitudes toward PWD (Antonak & Livneh, 2000). Ultimately, conducting detailed research in regard to the formation and transformation of negative attitudes into positive attitudes is essential for fostering the acceptance of persons with disabilities in all areas of our society. Through this, we can gain a better understanding of the possible interventions that can be utilized within education and communities, which in turn will aid in the transformation of negative attitudes toward persons with disabilities to positive.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD RESEARCH APPROVAL LETTER

To: Katie D'Andrea

From: Bart Van Voorhis, Coordinator
Institutional Review Board (IRB) for the
Protection of Human Subjects
bvanvoorhis@uwlax.edu
5-6892

Date: February 21, 2019

Re: **RESEARCH PROTOCOL SUBMITTED TO IRB**

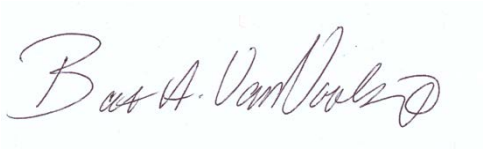
The IRB Committee has reviewed your proposed research project: ***"Non-Disabled Elementary School Students Attitudes Toward Persons with Disabilities."*** Because your research protocol will place human subjects at minimal risk, it **has been approved under the expedited review category in accordance with 45CFR46, 46.110(a)(b), with the following stipulation:**

> **"Prior to data collection, researchers will need to obtain assent for participation from the child participants." (Link to an example to be included in IRB approval email)**

Since you are not seeking federal funding for this research, the review process is complete and you may proceed with your project. Remember to provide participants a copy of the consent form and to keep a copy for your records. Consent documentation and IRB records should be retained for at least 3 years after completion of the project.

Continuing review after 12 months is not required for this project.

Good luck with your project!



cc: IRB File

APPENDIX B

PARENT INFORMED CONSENT FORM

Informed Consent Form

Protocol Title: Elementary Students' Attitudes Toward Persons with Disabilities

Principal Investigator: Katie D'Andrea
Adapted Physical Education Graduate Fellow
University of Wisconsin-La Crosse
Department of Exercise and Sport Science
27 Mitchell Hall
La Crosse, WI 54601
(516) 993-2458
dandrea3790@uwlax.edu

Purpose and Procedures:

- The purpose of this study is to determine whether the implementation of a disability awareness unit in a general physical education curriculum positively affects nondisabled students' attitudes toward persons with disabilities.
- Subjects will be given a pre-, middle, and post- survey that intends to measure their attitudes toward persons with disabilities.
- After the first survey, a disability awareness unit will be implemented consisting of about 10 lessons which will be spread out in a period of approximately 3 months.
- At the mid-point of the unit, the students will take the survey again to measure their attitudes toward persons with disabilities and if they have changed.
- Then, the students will take the survey a third time at the end of the unit to measure if their attitudes have changed after completion.
- Lastly, a few students from each grade will be randomly selected from their survey results and interviewed to further measure their attitudes toward persons with disabilities.
- Their responses will be coded in order to determine their attitudes.

Potential Risks and Benefits:

- There are no anticipated risks or inconveniences as the disability awareness unit will continue to provide students with appropriate and meaningful physical education.
- The main benefit from this study is if nondisabled students' attitudes toward persons with disabilities improve after the implementation of a disability awareness unit in their general physical education curriculum.
- Furthermore, students will gain physical benefits by participating in a variety of simulation activities and lessons that promote physical activity and the development of a variety of motor skills.

Protection of Confidentiality

- The surveys will be secured and stored safely to eliminate risk of a breach of confidentiality.
- Furthermore, identification numbers will be developed for surveys in place of student names.
- Next, a few students from each grade will be randomly selected from survey results to be interviewed and further determine their attitudes after coding their responses.
- Their responses will include their identification numbers rather than their name to ensure confidentiality.
- This will be considered confidential research, meaning that only the investigator can identify the responses provided by the subjects through surveys and interviews.

Additional questions regarding this study can be directed to the principal investigator, Katie D'Andrea (516-993-2458), or the study advisor, Dr. Zack Beddoes, Department of Exercise and Sport Science, UW-L (608-785-6524). Questions regarding the protection of human subjects may be addressed to the UW-La Crosse Institutional Review Board for the Protection of Human Subjects (608-785-8124 or irb@uwlax.edu).

Participant: _____ Date: _____

Parent/Guardian: _____ Date: _____

Researcher: _____ Date: _____

APPENDIX C

STUDENT INFORMED ASSENT FORM

Informed Assent Form

Child/Adolescent's Understanding:

Have all your questions regarding how the research study might affect you been answered? (Circle one) Yes / No

If you want to be part of the study, please sign your name. If you do not want to be part of the study, then do not sign your name. **If you say no to being in the study, you will still receive physical education with your class.**

_____ _____

Child/Adolescent's Signature Date

_____

Printed Name of Child/Adolescent

Parent's/Guardian's Understanding:

Have all your questions about how the research study is going to affect your child and/or yourself been answered? (Circle one) Yes / No

I believe my child is fully informed and is willing to participate in this study.

_____ _____

Parent's/Guardian's Signature Date

Investigator/Presenter

I have discussed this study and the possible risks and benefits of the study with the child, and I believe he/she is fully informed and is willing to participate in this study.

_____ _____

Investigator's Signature Date

What does signing this consent form mean?

A signature indicates that:

- You or your child has read the above.
- You or your child has freely decided to take part in the research study described above.
- The studies general purposes, details of involvement, and possible risks and discomforts have been explained to you and your child.

APPENDIX D

SURVEY INSTRUMENT

Name: _____ Grade: _____

Circle one: Male Female

Have you ever met a person with a disability before? (Circle your answer)
Yes No

Do you know a family member or a friend that has a disability? (Circle your answer)
Yes No

Perceived Capabilities Scale

Do you think that students with disabilities can…?

-Make friends with a student without disabilities.	0= No	1= Yes
-Play on sports team with other players with disabilities.	0= No	1= Yes
-Do physical activities like running or riding a bike	0= No	1= Yes
-Describe how they feel when they are sick to school nurse	0= No	1= Yes
-Act in consideration of another's feelings	0= No	1= Yes
-Talk with students without disabilities about common interests	0= No	1= Yes
-Choose their own clothes	0= No	1= Yes
-Recognize when someone needs help	0= No	1= Yes
-Use computers without help	0= No	1= Yes
-Act appropriately when introduced to strangers	0= No	1= Yes
-Learn same academic subjects as students without disabilities	0= No	1= Yes
-Play on sports team with other players without disabilities	0= No	1= Yes
-Understand the rules of a competitive sports game	0= No	1= Yes
-Help other students on science projects	0= No	1= Yes
-Use public transportation without help from an adult	0= No	1= Yes
-Handle and count their own money	0= No	1= Yes

Behavioral Intentions Scale

Behavioral Intentions- Inside of school

If there was a student with a disability in your class, would you…?

-Lend a student with a disability a pen or pencil
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Stand next to a student with a disability while standing in line
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Go up to the student with a disability to say hello
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Talk to the student with a disability during free time, recess, or lunch
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Choose a student with a disability to be on your team in PE
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Work with a student that has a disability on a class project
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Ask the student with a disability to sit with you at lunch
0= Not at all 1= Probably no 2= Probably yes 3= Yes

Behavioral Intentions- Outside of school

Would you do the following in the community?

-Sit next to a student with a disability on the bus
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Spend time with a student that has a disability outside of school
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Invite a student with a disability to go out with you and your friends
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Invite a student with a disability to your home
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Go to the movies with a student that has a disability
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-Talk about personal things with a student that has a disability
0= Not at all 1= Probably no 2= Probably yes 3= Yes

Impact of Inclusion Scale

If a student with a disability was included in your class during school…

-Teacher would focus more on that student than the rest of the class
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-It would be harder for students to concentrate on lessons
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-It would create distractions in our class
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-It would teach students that being different is OK
0= Not at all 1= Probably no 2= Probably yes 3= Yes

-It would help students be more accepting of others
0= Not at all 1= Probably no 2= Probably yes 3= Yes

APPENDIX E

DISABILITY AWARENESS UNIT

Disability Awareness Unit

Katie D'Andrea
General Physical Education
Crucifixion Elementary School

Contents

Sit Volleyball

Introduction
Sit Volleyball is a Paralympic sport that individuals with physical disabilities participate in. The rules are very similar to those in able-bodied Volleyball, except the players must remain seated the entire game.

Equipment
-Floater Volleyballs
-Volleyballs
-Beach balls
-Net
-Polyspots

Visual Support
https://youtu.be/uXLSzwJoT4M

Small Group Practice
The students will practice the passing and setting skills that they learned while sitting with a small group.

Level 1: The students will use a balloon for the first extension.
Level 2: The students will use a beach ball for the second extension.
Level 3: The students will use a floater volleyball for the third extension.

Circle Volleyball
The class will be split evenly in half and will be instructed to sit in a circle on their half of the gym where the polyspots are placed. One student should start seated in the center of the circle with the ball. This student will be in charge of tossing in the ball and keeping it up in the air with their group as a team. They should use the passing and setting skills that they learned during their able-bodied Volleyball unit to keep the ball up in the air while seated with their team. The students should count their successful passes/sets and try to beat their score each time. The teacher will blow the whistle every 2 minutes for a new student to switch to the center position.

Level 1: The students will use a balloon for the first extension of this activity.
Level 2: The students will use a beach ball for the second extension.
Level 3: The students will use a floater volleyball for the third extension.
Level 4: The students will use a regular volleyball for the fourth extension.

Keep it in
The class will be split evenly in half and will be instructed to sit in a circle on their half of the gym, with one person starting in the center of the circle. The student in the center is in charge of tossing the ball in, just like in Circle Volleyball. The only difference is that the center student is playing against the students sitting in a circle around them. The student

in the center should try to pass or set the ball out of the circle instead of trying to keep it up. If they successfully knock the ball out, they earn a point. If the students sitting in the circle keep the ball up for 10 passes in a row, they earn a point. Each group will play for about 5 minutes before a new student moves to the center position.

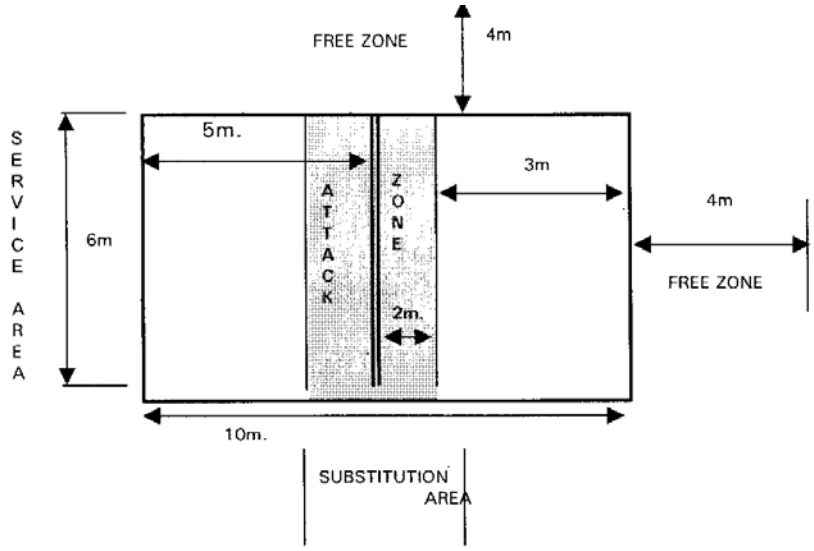
Level 1: The students will use a balloon for the first extension of this activity.
Level 2: The students will use a beach ball for the second extension.
Level 3: The students will use a floater volleyball for the third extension.
Level 4: The students will use a regular volleyball for the fourth extension.

Sit Volleyball- Modified Game

The students will be split into teams of 6-8 players and begin playing modified games of Sit Volleyball. The games will last for about 7 minutes and the teacher will switch new teams on to ensure equal playing time of every team.

Rules:
The rules are very similar to those of standing Volleyball with a few exceptions. During the game, some part of the body from the buttocks to the shoulders must remain in contact with the floor at all times. When hitting, players must remain seated. In Sit Volleyball, the players are also allowed to block on a serve.

Level 1: The students will use a beach ball for the first extension of this activity.
Level 2: The students will use a floater volleyball for the second extension.
Level 3: The students will use a regular volleyball for the third extension.



Debrief Questions:

1. How did it feel not being able to stand while playing volleyball?
2. What difficulties might you face if you didn't have the use of your legs daily?
3. What was the most difficult about Sit Volleyball?
4. What did you learn about people with physical disabilities related to participation in sports?

Wheelchair Sports

Scooter Handball

Introduction/Rules
Scooter Handball is played like regular handball except all of the players move on scooters. The object of the game is to score by throwing the ball into your opponent's net. Each team has 5-8 players and games will last for 5-7 minutes. Players may travel anywhere on the floor but may not travel while in possession of the ball (pivot only). Participants may only have the ball for approximately 5 seconds at a time before passing to a teammate or shooting. The offensive team must shoot from outside a designated crease area marked by polyspots (only the goalie is permitted in the crease). A defender may not grab the ball out of an opponent's hand. The defensive team gets possession after each goal. 1 point for each goal.

The students will be split into teams of 6-8 players and will play scooter handball tournament-style. The teacher will ensure that every team gets equal playing time throughout the tournament by limiting game time to 5-7 minutes long each.

Equipment
-Scooters
-Gator balls
-Nets
-Cones
-Polyspots
-Pinnies

Visual Support
https://vimeo.com/54459523

Safety
-Students should have bottoms seated on scooter at all times
-Keep hands and fingers away from the wheels
-DO NOT stand on scooters
-Tuck in loose clothing
-No crashing scooters

Debrief Questions
1. What was different about moving on a scooter vs. using your legs while playing handball?
2. How did your view of people that use wheelchairs change after playing scooter handball?

Scooter Basketball (Bucketball)

Introduction/Rules
The object of Bucketball is to shoot the ball into the opposing teams' bucket. Each team has 6-8 participants on the floor for each game (5-7 minutes). Students are free to move anywhere on the court. They may not travel while in possession of a ball (they may pivot/turn). They can hold the ball for up to 5 seconds before passing or shooting. Shots must be taken from outside a designated crease area marked by polyspots. Only defenders can enter the crease area to retrieve a ball. Defenders may not grab a ball out of an opponent's hand. Defending team gets possession after each basket. 1 point is awarded for a straight shot, two points awarded for a shot that is bounced off the wall or backboard.

The students will be split into teams of 6-8 players and will play scooter basketball (bucketball) tournament-style. The teacher will ensure that every team gets equal playing time throughout the tournament by limiting game time to 5-7 minutes long each.

Equipment
-Scooters
-Basketballs
-Gator balls
-2 Buckets
-2 Gymnastics mats
-Pinnies
-Polyspots

Visual Support
https://youtu.be/0RWvXzYKoHM

Safety
-Students should have bottoms seated on scooter at all times
-Keep hands and fingers away from the wheels
-DO NOT stand on scooters
-Tuck in loose clothing
-No crashing scooters

Debrief Questions:
1. How would the level of difficulty changed if you had to shoot into a basketball hoop?
2. What makes it difficult to shoot a ball into a basketball hoop while seated?

Scooter Hockey

Introduction/Rules
Scooter Hockey is very similar to floor hockey, but students will instead use scooters to move around the gym. Also, each student should have a mini hockey stick in each hand. Students are allowed to travel anywhere on the court. Players must shoot from outside a designated crease area marked with polyspots. The students should only use the stick to contact the ball (hands and feet are not permitted). Defenders are allowed to hit the ball off an opponent's stick. Start with a ball roll towards the center after each goal.

The students will be split into teams of 6-8 players and will play Scooter Hockey tournament-style. The teacher will ensure that every team gets equal playing time throughout the tournament by limiting game time to 5-7 minutes long each.

Equipment
-Scooters
-Nets
-Gator balls
-Mini hockey sticks
-Polyspots
-Pinnies

Visual Support
https://youtu.be/6kosXja_KQQ

Safety
-Students should have bottoms seated on scooter at all times
-Keep hands and fingers away from the wheels
-DO NOT stand on scooters
-Tuck in loose clothing
-No crashing scooters

Debrief Questions
1. How did it feel using 2 mini hockey sticks instead of one?
2. What did you need to do differently to move quicker on the scooter to get to the ball?

Cooperative Activities- VI/Blindness

Introduction to VI/Blindness

The teacher will introduce blindness to the students and discuss the variation of sight between each person that is legally blind. They communicate just like you and I using their voices, however, on paper they type brail or read brail and when utilizing the internet, they use their hearing. People that are blind are able to move around in their daily lives through the use of human guides, canes, and/or a guide dog. Although it sounds difficult to go through daily life without vision, people who are blind still excel in many areas of our society. One area is through Paralympic sports such as Goalball, Beep Baseball, and even 5-a-side Soccer as of most recently!

Visual Support

https://youtu.be/FmzLh7VV_8g -Beep Baseball (Eau Claire, 2018)
https://youtu.be/0bZ51jzmbAQ -Goalball

Safety

-FREEZE
-Move slowly with arms straight out in front of body (bumpers up)

Exploring the Environment

We will start exploring the spaces that we normally travel through while wearing blindfolds to simulate people that are blind. Working with partners, the students without blindfolds will guide their partner who will be wearing a blindfold. The students will also be given pieces of equipment by their partner and should try to guess what the equipment is. Along with that, students will try a variety of sports skills while blindfolded, including throwing, catching, batting off a tee, shooting a basketball, and kicking. The students should be conscious of what happens to their other senses when they lose their vision and notice the differences in their environment.

Level 1: For the first level, students will explore indoors with their partner and practice low-level sports skills while blindfolded (throwing, kicking).
Level 2: For the second extension, students will explore indoors and outdoors with their partners and practice higher level sports skills while blindfolded (catching, shooting a basketball, batting off a tee).

Hog Call

For this activity, students will each be given a piece of paper with 3-5 animals written on them and numbered. They will each be given a blindfold and be told to keep their bumpers up during this activity. When the teacher calls out a number, the students should make the animal noise that is written on their piece of paper with the same number while blindfolded. There will be 2-4 other students with the same animal written for that number, so the object is for all of these students to use this animal noise to ultimately find each other while blindfolded. Once they find each other, they will be given a group exercise to perform together before the teacher moves on to the next number on their piece of paper. This will continue until they have found each of their groups and performed their group exercises.

Level 1: Students will do this activity with one partner first. They will choose any word with their partner that the two of them will use to find each other while blindfolded. During this, each student should be looking for one other person in the class.
Level 2: Students will be given a piece of paper with animals on them and do the activity as a larger group.

Junkyard Traverse

The teacher will dump a bunch of random equipment along the playing area. Then partners that are not wearing blindfolds will lead their blindfolded partner through the junkyard (across the gym), trying to make sure they do not touch or step on any of the junk. The sighted partner should be on the side line communicating to their partner what direction to move in. If junk is stepped on or touched, they should both do 10 jumping jacks and switch turns. Pairs can race against each other, or time trials to see if they can improve each time they try. Communication is key for this activity. Make sure that all partners are focused on their own partner rather than other groups.

Level 1: The first level will be done by crossing the gym horizontally (width).
Level 2: The second level will be done by crossing the gym vertically (length).

Debrief Questions:

1. How did you first feel when you started to move around with a blindfold on?
2. How did these feelings change over the course of these activities?
3. What did you physically feel that was different when moving without your vision?
4. What did you learn from these activities that you didn't know before about being blind?
5. How can you help individuals who have low vision or are blind?

Beep Kickball

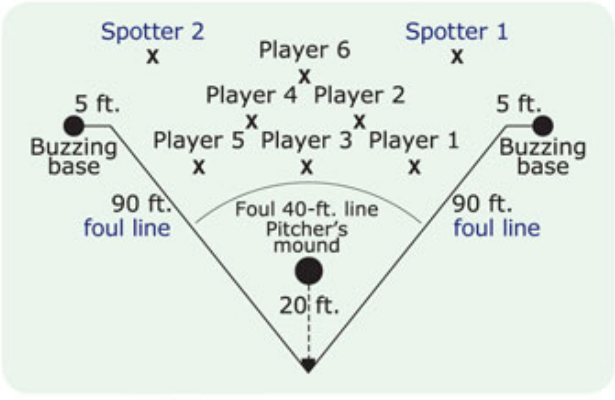
Introduction/Rules

Beep Kickball is an adapted sport for people who are visually impaired or blind. It is played on a flat grassy field with a ball that beeps and two bases that buzz. There is no second base, no throwing the ball and no running around all the bases. Every player wears a blindfold to equalize the differences in vision. There are only two bases, first and third. One base will buzz after the ball is kicked. Either of the two bases might buzz when the kicker kicks the ball. If the runner tags the base that buzzed before a fielder picks up the ball, they are safe and earned a point for their team. If a fielder picks up the ball first, the runner is out. There are 3 outs in an inning and 6 innings in a game.

For elementary kids, the field is set up like a baseball diamond with first and third bases 60 feet from home plate and 10 feet outside the baseline. The foul arc is 30 feet and a home run is 80 feet.

Before playing, the students will all practice the FREEZE and DUCK commands while blindfolded. Then, the teacher will split the class into two equal teams. The fielders will stand in the field as shown in the diagram. Then, the teacher will place the beeping ball in front of the kicker. He can place kick it, run and kick it or drop kick it. There are three "strikes" before being called out, but most kids kick the ball on the first try. The ball has to be kicked farther than the foul arc (cone) and inside the baselines to be a fair ball. A fair fly ball kicked beyond the home run arc is a home run, but the kicker still has to run and tag the base. Fielders will be given a number that is called if the ball is closest to them to minimize the number of students going for the ball. The teacher will call out the number each time the ball is kicked.

Students from the kicking team will help with sound devices for base runners and to help keep fielders and runners safe along with the teacher. All blindfolded runners should have a teammate that is not blindfolded running alongside of them at all times.



Equipment
-Beep kickball
-Beepers
-Bases
-Blindfolds

Visual Support
https://youtu.be/tonRrIjVfAM

Safety
-FREEZE, DUCK
-Run with arms out in front of body
-All students without blindfolds on (waiting to kick) should make sure all students blindfolded are safe at all times
-Spotters in the field

Debrief Questions
1. What did you notice about your other senses when you were blindfolded?
2. What made it difficult to navigate your way to the base after kicking the ball?
3. What made it difficult to find the ball in the field?
4. How did it feel to be a fielder vs. a kicker/runner?
5. How did it feel to be a spotter?
6. What challenges might you face daily if you had no vision?

APPENDIX F

REVIEW OF RELATED LITERATURE

INTRODUCTION

History

Persons with disabilities have been subject to negative attitudes and stereotypes which can significantly affect their quality of life throughout history. Hutzler (2003), a professor at Zinman College, conducted a review of literature on the attitudes toward the participation of individuals with disabilities in physical activity and discussed the history in detail. Within his review, he examined four paradigm approaches representing the history of practices in, society, education, and physical activity regarding individuals with disabilities participation. He stated that persons with disabilities were predominantly institutionalized in the 1900s, supporting a facility-based paradigm and were subject to mostly negative attitudes as well as discrimination in all settings (Hutlzer, 2003). More specifically, other research states that at this time, persons with intellectual disabilities suffered continuous victimization and were historically placed very low on the societal power scale (Akrami, Ekehammar, Claesson, & Sonnander, 2006).

According to Tripp and colleagues (1995), theories concerning the formation of negative attitudes toward persons with disabilities began to develop in the early 1900s. The paradigm continued to shift toward the mid 1900s regarding attitudes toward persons with disabilities; in particular regarding their participation in the educational setting (Tripp, French, & Sherrill, 1995). From Hutzler's findings, the second half of the 20th century was the start of the service-based approach in education for individuals with disabilities (Hutzler, 2003). Hutzler (2003) states that this approach was specifically utilized within or alongside general physical education (GPE), also known as Adapted Physical Education, which is a service for students with disabilities that require support in

their general physical education program. When the environment is not safe for a student or they are not successful, they may require adapted physical education services from their school district. The progress that has been made since the early 1900s to what is now known as “Adapted Physical Education” is considered to be a “major breakthrough toward integrated participation” regarding students with disabilities (Hutzler, 2003). In addition, the increase of interactions between persons with disabilities and those without disabilities in educational settings can help further support an expansion of positive attitudes toward individuals with disabilities.

Moving toward the late 1900s, students with disabilities were further accepted into the general education setting with the implementation of an integrated approach, leaving inclusion as the leading priority (Tripp, et al., 1995). Hutzler (2003) described inclusion as accepting the differences of persons with disabilities and responding to their individual needs, which results in a cohesive sense of community for every student. Throughout the development of inclusion in education, attitudes toward persons with disabilities continued to progress later in the 20th century, resulting in the increase of self-empowerment in these individuals (Hutzler, 2003). This lead Hutzler (2003) to further describe the more contemporary educational approach that developed in the 1990s, referred to as empowerment and self-determination . The major focus and reasoning behind these constructs is to support independence, decision-making, and self-worth in persons with disabilities even though they were taught to comply and be more dependent in earlier paradigm’s (Hutzler, 2003). With that said, moving towards an independence-driven framework, similar to the approach mentioned above, allows for persons with

disabilities to be a critical part of their own learning, as well as supporting the transformation of attitudes in their peers.

Through all of the improvements made regarding attitudes toward PWD, research shows negative attitudes continue to flood our society in regard to individuals with disabilities. The progress made is in fact observable in relation to the terminology that we use to describe persons with disabilities (Akrami, Ekehammar, Claesson, & Sonnander, 2006). Akrami (2006) and colleagues illustrate an example such as the conversion of the term ‘mental retardation’, which is now referred to as ‘intellectual disability’. Furthermore, Akrami (2006) and colleagues have been known to challenge these changes, stating that they merely reflect an adjustment in the expression of prejudice beliefs. In result, if prejudice beliefs continue to exist but are suppressed, then the apparent improvement of attitudes toward PWD that is suggested in research may not be as significant as it seems.

ATTITUDES

Although there have been substantial improvements in individual’s attitudes toward persons with disabilities, negative attitudes are continuously displayed in a variety of settings (White, Jackson, & Gordon, 2006). According to Antonak and Livneh (2000), “attitudes are regarded as latent or inferred psychosocial processes that lie dormant within one’s self unless evoked by specific referents”. Similarly, in Hutzler’s (2003) review of attitudes toward the participation of individuals with disabilities in physical activity, he defines an attitude as “an idea charged with emotions which predisposes a class of actions to a particular class of social situations”.

Within these definitions are three factors that often correlate with attitudes toward disability- cognitive, affective, and behavioral elements (Findler, Vilchinsky, & Werner, 2007; Hutzler, 2003). The cognitive piece is “an individual’s ideas, thoughts, perceptions, beliefs, opinions, or mental conceptualization” of persons with disabilities (Findler, et al., 2007). Findler and colleagues (2007) state that the affective component reflects the positive and negative emotions of an individual’s attitudes toward persons with disabilities. Lastly, the behavioral element relates to the intention of behaving a specific way toward persons with disabilities or the actual behavior someone displays toward persons with disabilities (Findler, et al., 2007). Due to the presence of these components, research ultimately states the issues with measuring attitudes toward persons with disabilities due to its overall complexity (Antonak & Livneh, 2000). Because of this factor, Antonak and Livneh (2000) recommend “using multidimensional scales that differentiate between the three components of attitude (affective, cognitive, and behavioral)” as well as comparing the correlation between these components and other variables, such as “demographic, personality, and situational”.

According to research on implicit and explicit attitudes toward athletes with disabilities, negative attitudes can be linked to “social rejection and higher levels of distance toward persons with disabilities” (White, Jackson & Gordon, 2006). Generally, negative attitudes toward persons with disabilities are said to be a barrier to success in educational, social and vocational circumstances (Findler, et al., 2007; White, et al., 2006). As stated by Antonak and Livneh (2000), “negative attitudes toward persons with disabilities create obstacles to the fulfillment of their roles and the attainment of their life goals”. Because if that, it is crucial to understand the reasoning behind negative attiudes

toward PWD in order to choose an appropriate intervention and attempt to transform these attitudes (Antonak & Livneh, 2000). Attitudes often convey a stereotype or generalization regarding characteristics of persons with similar disabilities, making attitudes extremely malleable because of external influences and personal experiences (Antonak & Livneh, 2000).

FACTORS INFLUENCING ATTITUDES

Gender/ Age

According previous research states that gender has a significant influence on nondisabled individuals' perceptions of and attitudes toward persons with disabilities (Archie & Sherrill, 1989; Findler, et al., 2007; Hutzler, 2003; Tripp, et al., 1995). Tripp and colleagues (1995) refer to gender as the "most significant predictor for attitudes". Studies done by Archie and Sherrill (1989) have shown that "females tend to have more positive views" regarding persons with disabilities, which is also supports by Hutzler's study (2003). To further support this finding, Tripp and colleagues (1995) conducted a study and found that girls display more positive attitudes toward persons with disabilities than boys. In addition, Findler and colleagues (2007) not only found that "women hold more positive behavioral attitudes" toward persons with disabilities than men, but also discovered that "men with high self-esteem were found to hold more positive cognitions than men with low self-esteem" toward persons with disabilities. Along with that, they found that "as age increased, emotions and behaviors toward persons with disabilities were more positive" (Findler et al., 2007). With all of this in mind, a recommendation for future research would be to study in detail the influence of gender on attitudes and what causes males and females to have different attitudes toward persons with disabilities.

Also, further comparing the difference in attitudes toward persons with disabilities throughout a spectrum of ages would be a worthy future research topic.

Setting/Environmental Factors

According to Hutzler (2003), attitudes of non-disabled students can be negatively affected if adaptations for students with disabilities aren't carefully structured within the general physical education setting. Furthermore, Tripp and colleagues (1995) support the idea that the environment or setting can significantly affect attitudes toward persons with physical or behavioral disabilities, but not learning disabilities. With that said, if the environment isn't conducive for all students in your class when utilizing the inclusion model, it will hinder the ability to alter negative attitudes toward PWD. Furthermore, when children are integrated in an inclusion setting, students without disabilities tend to display significantly more positive attitudes toward persons with disabilities (Tripp, et al., 1995). Consequently, children in segregated settings that do not have peers with disabilities in their classes tend to present more negative attitudes toward persons with disabilities (Tripp, et al., 1995).

Not only is the setting an influence of the attitudes toward persons with disabilities, but the conditions of the environment also play a part. The positivity or negativity of attitudes can be altered depending on the conditions, meaning "favorable conditions tend to produce positive attitude shifts, while unfavorable conditions tend to produce negative attitude shifts" (Tripp, et al., 1995). More specifically, Tripp and colleagues (1995) found that better conditions of the environment tend to increase positive interactions between individuals with and without disabilities as well as foster positive attitudes toward persons with disabilities. This will occur in an environment by

ensuring the equality of all students, providing rewarding activities for persons with and without disabilities, and incorporating shared objectives for the class to work together and utilize every individuals' skills (Tripp, et al., 1995). It is critical for the proper steps to be taken to create a safe learning environment where all children are included and are able to reach success, which in turn will lead to more positive attitudes toward students with disabilities.

Contact Theory

Many other scholars agree that the quality of interactions between nondisabled students and SWD is critical. However, many also believe it may not just be inclusion that is likely to alter negative attitudes, but exposure to PWD in general. Exposure is a great tool that can foster positive attitudes toward persons with disabilities, as well as supporting experiences that include positive interactions between those with and without disabilities. Not only is it important to promote this exposure as educators, but it is critical to assure that it will lead to quality experiences for those with and without disabilities (Hutzler, 2003). Through his review of literature, Hutzler defined Contact Theory as a learning-behavioral theory insinuating that prejudice and stereotypes toward persons with disabilities can decrease through positive contact with individuals with disabilities (Hutzler, 2003). In a study of their own, Archie and Sherrill (1989) studied the attitudes of fifth- and sixth- grade students toward children with disabilities to further discuss the influence of exposure on attitudinal changes. The participants consisted of 143 students that attended school in an integrated setting, as well as 86 additional students who are not exposed to persons with disabilities in school (Archie & Sherrill, 1989). They discovered that participation in activities where students have a mutual

interest and understanding will improve the level of acceptance toward persons with disabilities in the general physical education setting (Archie, et al., 1989). With that said, it is imperative to create an equal playing field for all students while maintaining full engagement and participation alongside their peers. Disability sport can be a useful method for creating an equal playing field and reducing prejudice as well as negative attitudes toward persons with disabilities (Archie, et al., 1989).

In the study conducted by Archie and Sherrill mentioned above, greater than three students with a variety of disabilities were included in the general physical education classes whereas there were no children with disabilities in the non-mainstreamed school (Archie, et al., 1989). With the use of the Children's Attitudes Toward Handicapped Scale, the results showed that students who were mainstreamed had more positive attitudes toward persons with disabilities (Archie, et al., 1989). More specifically, they described them as "more fun and more interesting" and the non-mainstreamed students had more negative attitudes toward persons with disabilities (Archie, et al., 1989). Another study that supports these findings was conducted by Tripp and colleagues (1995) in regard to the affect that Contact Theory has on attitudes toward persons with disabilities. Contact Theory was researched within this study by analyzing attitudes toward peers with physical, learning, and behavioral disabilities in integrated and segregated physical education settings (Tripp, et al., 1995). Nondisabled children's' total and subscale attitude scores from the Peers Attitudes Toward the Handicapped Scale were examined and compared in both settings (Tripp, et al., 1995). As a result, Tripp and colleagues (1995) stated they support Contact Theory in relation to individuals with behavioral disabilities only.

Another study regarding the relationship between contact and attitudes was conducted by Keith, Bennetto, and Rogge (2015). Not only did they investigate this influence, but they further examined "the influence of the quality and quantity of contact on both explicit and implicit levels of prejudice" (Keith, Bennetto, & Rogge, 2015). Additionally, this research considered "potential mediation via intergroup anxiety and implicit attitudes" (Keith, et al., 2015). They found that the quality of interpersonal interactions between non-disabled individuals and persons with disabilities had a greater influence on attitudes than the quantity of these interpersonal interactions (Keith, et al., 2015). For example, facilitating ten mediocre interactions between non-disabled individuals and persons with disabilities would be less impactful on attitudes toward persons with disabilities compared to facilitating three highly constructive interactions between these groups. Therefore, Keith and colleagues stated the importance of developing well-planned interactions when implementing inclusion opportunities for individuals with and without disabilities (Keith, et al., 2015).

Moreover, facilitating contact between persons with and without disabilities allows for greater positive feelings if the following conditions are met- shared goals are present, persons have equal status, cooperation occurs, and strong institutional support is present (Keith, et al., 2015). Results indicated that encouraging meaningful interactions between non-disabled students and students with disabilities increases the inclusion of persons with disabilities in other settings in the community (Keith, et al., 2015).

The quality of contact was also related to students with disabilities' levels of empowerment attitudes. For instance, the results of this study support that "enriching interactions" with persons with disabilities can lead to more positive attitudes towards

this population (Keith, et al., 2015). Results also show that intergroup anxiety decreases between persons with disabilities and those without disabilities due to "rewarding and enjoyable interactions" (Keith, et al., 2015). On the contrary, the results from this study also show that having more contact with persons with disabilities leads to an increase of exclusion and the greater the intergroup anxiety is, levels of exclusion and sheltering attitudes are observable (Keith, et al., 2015). Ultimately, attitudes toward persons with disabilities cannot be improved with exposure unless the contact and interactions are well-planned and meaningful for both groups.

METHODS FOR ASSESSMENT

According to Antonak and Livneh (2000), "the investigation of attitudes towards persons with disabilities requires innovative experimental methods and psychometrically sound instruments that are reliable, valid, and multidimensional". Due to the development of additional research regarding assessment options, techniques for measuring individual attitudes toward persons with disabilities have improved over time (Antonak & Livneh, 2000). There are a plethora of options for measuring attitudes toward persons with disabilities that can be more specifically applied to specific populations or settings (Findler, et al., 2007). Antonak and Livneh (2000) conducted research on measurement of attitudes toward persons with disabilities and state that there are direct methods of measurements as well as indirect methods (Antonak & Livneh, 2000).

Within their study, Antonak and Livneh (2000) illustrate ten direct methods for measurement and 14 indirect methods for measurement of attitudes toward persons with disabilities. Direct methods suggest that the persons being measured are aware that they are being measured whereas indirect methods suggest that the individuals being measured

are unaware that they are being measured (Antonak & Livneh, 2000). According to Antonak and Livneh (2000), “direct methods are most commonly used for measuring attitudes towards persons with disabilities” through opinion surveys, interviews, ranking methods, Q methodology, sociometrics, adjective checklist (ACL), semantic differential method or rating scales.

Although direct methods are more commonly utilized, Antonak and Livneh (2000) there found many areas of invalidity with these methods of measuring attitudes toward persons with disabilities. For example, direct methods can lead to individuals changing their attitudes when recording for many different reasons, such as to please researcher, make a good impression, or through the generosity effect (Antonak & Livneh, 2000). Conversely, “indirect methods are used to prevent the threats to the validity of attitude data” because individuals aren’t aware that they’re being measured or are unsure of the true purpose for measurement (Antonak & Livneh, 2000).

CONCLUSION

From analyzing and reviewing literature related to non-disabled students’ perceptions of persons with disabilities, it is clear that there is a need for more research to be done regarding this topic in many different focuses. According to Hutzler (2003), more research should also be done specifically on interventions used to alter attitudes toward PWD. Additional philosophies should also be tested and applied to Contact Theory to further examine potential approaches for changing attitudes toward PWD (Hutzler, 2003). Overall, Hutzler states the importance of utilizing multisite collaboration, increasing quality of the experimental design and generalizability (Hutzler, 2003).

Others believe that research should be more focused on other aspects of this topic, such as the many scales to choose from for measuring attitudes toward persons with disabilities. Antonak and Livneh (2000) state that researchers should put greater emphasis on "refining, revising, updating, and revalidating older scales rather than on developing new scales" (Antonak & Livneh, 2000). Antonak and Livneh (2000) also suggest that researchers in the future should illustrate specific disabilities being studied in their samples rather than giving broad descriptions. More research should also be done regarding verbally expressed attitudes compared to written expressed attitudes to determine if there is a difference between the two communication methods in regard to attitudes toward PWD (Antonak & Livneh, 2000). Ultimately, conducting detailed research in regard to the formation and transformation of negative attitudes into positive attitudes is essential for fostering the acceptance of persons with disabilities in all areas of our society. Through this, we can gain a better understanding of the possible interventions that can be utilized within education and communities, which in turn will aid in the transformation of negative attitudes toward persons with disabilities to positive.

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