INCLUSIVE PHYSICAL EDUCATION:
ATTITUDES AND BEHAVIORS OF STUDENTS

A Thesis

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ABSTRACT

The inclusion of students with various disabilities in general physical education has become increasingly common in schools. Within the context of physical education, inclusion has been defined as a philosophical perspective that advocates the placement of all students with varied abilities and disabilities (mild to severe) into classes with peers in their neighborhood schools (Block, 2000; Hodge, Murata, Kozub, & Sherrill, in-review). However, there is limited research concerning the attitudes of students with and without disabilities towards each other relative to inclusion in physical education. The purpose of this study was to examine the attitudes and behaviors of 6th grade students with and without disabilities relative to being educated in an inclusionary physical education program. Participants were students with disabilities (_n = 2) and students without disabilities (_n = 16) from a rural middle school in Midwestern Ohio. Contact theory's structured contact variables (Allport, 1954; Sherrill, Heikinaro-Johansson, Slininger, 1994) served as the theoretical frame for this study. Data collection and triangulation involved both quantitative and qualitative methods. Overall, findings suggest that students with and without disabilities exhibited positive attitudes and behaviors towards one another within an inclusionary physical education program. More specifically,
responses to the *Children's Attitudes Toward Integrated Physical Education* (Block, 1995) attitudinal instrument revealed that students without disabilities held positive attitudes toward including peers with disabilities (i.e., mental retardation and physical disability). In support of this finding, the *Analysis of Inclusion Practices in Physical Education* (Hodge et al., 2000) behavioral observation instrument showed that when interactions did occur, students with and without disabilities mostly interacted in appropriate ways. In addition, responses to *The Inventory* (Webb, 2000) attitudinal scale indicated that students with disabilities (i.e., a girl with mental retardation and a boy with a physical disability) held favorable attitudes towards their peers without disabilities. Again, this finding was supported by themes that emerged from semi-structured interviews suggesting that positive relationships and interactions did occur between students with and without disabilities, and their teachers. Overall findings in this study lend support to contact theory’s structural contact variables (Sherrill et al., 1994). Importantly, this study allowed us to gain additional insight regarding the attitudes and behaviors of students with and without disabilities toward one another in an inclusive physical education program.
DEDICATION

To my mother and father for supporting me in all of my decisions, and to my brother who understands me in a way no one else can. I sincerely thank my entire family for their love, encouragement, and patience, especially when times were difficult.

Without my family, I would have not made it this far!
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### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>ii</td>
</tr>
<tr>
<td>Dedication</td>
<td>iv</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>v</td>
</tr>
<tr>
<td>Vita</td>
<td>vii</td>
</tr>
<tr>
<td>List of Tables</td>
<td>x</td>
</tr>
<tr>
<td>List of Figures</td>
<td>xi</td>
</tr>
</tbody>
</table>

**Chapters**

1. **Introduction** ................................. 1
   1.1. Statement of Problem ...................... 3
   1.2. Significance of the Study ................. 4
   1.3. Purpose Statement .......................... 5
   1.4. Definitions of Terms ...................... 5
   1.5. Delimitations and Limitations .......... 8

2. **Review of Literature** ....................... 9
   2.1. Literature on Children’s Attitudes and Behaviors ... 9
   2.2. Changing Children’s Attitudes and Behaviors ... 28
   2.3. Theoretical Framework .................... 32

3. **Methods** ........................................ 36
   3.1. Participants .............................. 36
   3.2. Research Site and Setting ............... 38
   3.3. Research Design ......................... 39
   3.4. Instrumentation ........................... 40
3.5. Data Collection ................................................................. 47
3.6. Data Analysis ................................................................. 48

4. Results and Discussion ....................................................... 51
4.1. Introduction ........................................................................ 51
4.2. Results of Students without Disabilities Attitudes .......... 53
4.3. Results of Students’ Interactions in Inclusive GPE .......... 56
4.4. Observational Data for Rita ............................................. 56
4.5. Observational Data for Ben ............................................. 59
4.6. Themes Emerged from Semi-Structured Interviews ....... 64

5. Summary, Conclusions, and Recommendations .................. 79
5.1. Summary ........................................................................ 79
5.2. Conclusion ...................................................................... 83
5.3. Recommendations for Practice ...................................... 85
5.4. Recommendations for Future Research ......................... 86

References ............................................................................. 88

Appendices
Appendix A OSU Human Subjects Review Approval Sheet ....... 95
Appendix B Parent Letter ....................................................... 97
Appendix C Participant Consent Form ................................... 99
Appendix D Children’s Attitudes Toward Integrated PE ...... 101
Appendix E Analysis of Inclusion Practices in GPE .......... 108
Appendix F The Inventory ..................................................... 112
LIST OF TABLES

1. Summary of Study of Methodology.............................. 50
2. Students without Disabilities Attitudes Toward Rita with Mental Retardation and Ben with a Physical Disability........... 55
3. Descriptive Data of Rita and Ben's Behaviors Across Lessons 63
4. Rita and Ben's Attitudes Toward Their Peers without Disabilities 67
LIST OF FIGURES

1. A Model for Attitude Change Using Contact Theory ........... 35
CHAPTER 1

INTRODUCTION

Ideally, inclusion refers to the safe, successfully educative, and satisfying experiences of students with disabilities in general physical education classes who may require the use of support personnel and accommodations (Block, 2000; Hodge, Murata, Kozub, & Sherrill, in-review). Within the context of physical education, inclusion is defined as a philosophical perspective that advocates the placement of all students with varied abilities and disabilities (mild to severe) into general physical education classes with peers in their neighborhood schools (Block, 2000; Hodge et al., in-review). Inclusion has many different interpretations and meanings for administrators, teachers, parents, and others. Most commonly, inclusion is intended to encourage and assist with social, instructional, and physical interactions among all students within an educational context, while at the same time helping them achieve high-quality educational experiences (Webb & Pope, 1999).

According to the least restrictive environment mandate in Public Law 105-17, the Individuals with Disabilities Act [IDEA] Amendment of 1997, students with disabilities should receive their education in an environment that endows them with
the best opportunity to be successful, which may involve a general education setting (Hodge et al., in-review). Block (1994) argued that there are benefits of inclusion for students with disabilities. With help from adults, students’ attitudes towards peers with disabilities improve, resulting in fewer fears, teasing, stares, and negative comments. In fact, most students with disabilities are more similar than different from their peers without disabilities. Therefore, peers who do not have a disability quickly learn to understand, and accept individual differences when included with peers who have disabilities (Block, 1994). “One of the benefits that is supposed to accrue through integration of students with disabilities into regular physical education programs is positive attitudinal changes by nondisabled students” (Tripp, French, & Sherrill, 1995). This benefit aligns with contact theory, which posits that interaction between individuals with differences tends to produce changes in attitudes. According to Tripp et al. (1995), contact theory (Allport, 1954) in physical education has mainly been supported philosophically rather than empirically. Physical education is one of the primary curricular areas to practice integration (McClenaghan, 1981), however, there has been limited research in physical education on contact theory relative to attitudinal and inclusion-related variables. Therefore, theory-based research is encouraged to provide a framework for understanding the effects of disability and the relationships between attitude and behavior of students with and without disabilities in general physical education settings (Tripp & Sherrill, 1991). In this study (as depicted in Figure 1), the current researcher will focus on the structured contact variables (i.e., frequent, interactive,
pleasant, common goal focus, meaningful, promoting respect via equal status, and long term) within the model relative to understanding and explaining attitudes. In brief, the structural contact variables of contact theory will provide a framework for the current study as we examine the attitudes and behavioral interactions of students with and without disabilities in an inclusionary general physical education program.

Statement of Problem

Often times, students (at all age levels) are very critical of their peers in the gymnasium and it is often due to a lack of understanding of one another’s differences and life experiences. It is imperative that students with and without disabilities have the opportunity for safe, successful, and satisfying learning experiences in a physical education program. In addition, it is important to examine peer interactions within physical education contexts to determine whether or not they have such learning experiences. The lack of peer interactions among students confines the experiences for both groups of children with regard to developing positive attitudes toward each other (Chamberlin, 1999). However, there is evidence to support positive outcomes from inclusion (Block & Zeman, 1996, 1997). Inclusive general physical education programs can be quite successful when children with and without disabilities have opportunities to make contact with each other and interact in meaningful ways.
Significance of the Study

There has been much research regarding the attitudes and perceptions of physical educators towards inclusionary physical education programs. Yet, there is limited research concerning the attitudes of children with and without disabilities towards each other and/or inclusion in a physical education setting (Goodwin & Watkinson, 2000; Slininger, Sherrill, & Jankowski, 2000). And yet, attitudes of peers are considered one of the most important variables in the successful integration of children with and without disabilities (Slininger et al., 2000). Relative to the affective domain, empirical evidence show us that middle school students are often interested in impressing a peer group and the opposite gender. Furthermore, middle school-aged students have an interest in and are self-consciousness about their own bodies, appearances, and abilities (Harrison, Blakemore, Buck, & Pellett, 1996). Such interests for example, may have a positive or negative affect on the attitudes of students without disabilities toward their peers with disabilities. Therefore, it is important to include the voices of students with and without disabilities in research studies to gain a deeper understanding of the positive and negative effects of inclusive programming in physical education settings (Chamberlin, 1999; Webb, 2000).
Purpose Statement

The purpose of this study was to examine the attitudes and behaviors of 6th grade students with and without disabilities from a rural middle school relative to being educated in an inclusionary general physical education class. The current study is framed within the structural contact variables of contact theory (Allport, 1954; Sherrill, 1998). These research questions were addressed within the study:

1. What are the attitudes of students without disabilities towards their peers with disabilities in an inclusive physical education setting?

2. What are the behaviors of students with and without disabilities in inclusive physical education classes?

3. What are the attitudes of students with disabilities towards their peers without disabilities in an inclusive physical education setting?

Definitions of Terms

For purposes of clarity, the following terms are defined.

**Academic Learning Time** is the amount of time a student is engaged with activities and/or instructional materials (Siedentop, Birdwell, & Metzler, 1979).
Analysis of Inclusion Practices in Physical Education (AIPE) is a systematic observational system designed to measure the occurrence of specific behaviors during physical, instructional, and social inclusion practices (Hodge et al., 2000).

Appropriate behavior refers to students engaging in acceptable actions among or toward one another. For example, if a student without a disability provides feedback to a peer with a disability (Hodge et al., 2000).

Attitudes refer to an enduring set of beliefs charged with emotions that predisposes a person to certain kind of behaviors (Sherrill, 1998).

Children’s Attitudes Toward Integrated Physical Education (CAIPE-R) is an inventory designed to assess attitudes of children without disabilities toward including peers with disabilities (physical disability and/or mental retardation) in general physical education (Block, 1995).

Contact theory posits that contact between individuals with differences produces attitudinal change. When contact interactions are frequent, pleasant, and meaningful, attitudinal changes are likely to be positive (Allport, 1954; Amir, 1969).

Down Syndrome results form a chromosomal abnormality. Persons with Down syndrome are characterized by short stature, distinct facial features and physical and cognitive differences (Sherrill, 1998).
Inappropriate behavior refers to students engaging in unacceptable actions among or toward one another, for example, if a student unjustly criticizes her or his peer with a disability (Hodge et al., 2000).

Inclusive physical education refers to general physical education classes that educate both students with and without disabilities together. Those students with disabilities may or may not require special services or accommodations within the class (Block, 2000).

Instructional inclusion refers to the extent of involvement among and between students with and without disabilities in learning activities within general physical education classes (Sherrill, 1998).

Mental retardation refers to substantial limitations in certain personal capabilities manifested as significantly sub-average intellectual functioning that exists concurrently with deficits in two or more adaptive skill areas, such as: communications, self-care, social skills, self-direction, and so on (IDEA, 1997; Sherrill, 1998).

Physical disability refers to a student that may use braces or support (e.g., Charleston brace), or assertive devices for mobility (e.g., wheelchair) due to paralysis, abnormal muscular-skeletal disorder or postural deviations (e.g., scoliosis), or limited strength, limited speed, limited flexibility, limited coordination, and/or slow reaction time (IDEA, 1997; Winnick, 1995).
Social inclusion refers to the nature and occurrence of personal interactions among and between peers with and without disabilities who are classmates within general physical education (Sherrill, 1998).

Delimitations and Limitations of the Study

The current study is delimited relative to the selection of participants. Specifically, this study is delimited to students with and without disabilities who were purposely selected based on their inclusion in a general physical education program. Moreover, participants with disabilities were purposely selected based on whether they had mental retardation or a physical disability. Due to nonrandomness, the participants are not to be representative of the larger population of students with mental retardation or physical disabilities.
CHAPTER 2

REVIEW OF LITERATURE

The review of literature in regards to this study has been divided into three sections: a) Literature on Children’s Attitudes and Behaviors, b) Changing Children’s Attitudes and Behaviors, c) Theoretical Framework.

Literature on Children’s Attitudes and Behaviors

Attitudes towards persons with disabilities has been the focus of much research, with numerous investigators substantiating the assumption that individuals with disabilities are often viewed less favorable than persons without disabilities (Slinginer, Sherrill, & Jankowski, 2000). Antonak and Livneh (1988) discussed techniques that are used in attempts to produce attitude change toward persons with disabilities. These include; direct and indirect strategies advocating (media) contact or exposure to persons with disabilities. Special education studies about the effects of direct or indirect contact with exposure to persons with disabilities can be further subdivided into those that assessed the effects of non-structured direct experience with
persons with disabilities and those studies that examined the effects of carefully, controlled, structured experiences with persons with disabilities (Slininger et al., 2000). Donaldson’s (1980) analysis contact studies in special education indicated that more structured experiences yielded more positive attitude change as opposed to the non-structured experience that revealed less positive attitudes. In contrast, only about one third of the studies using non-structured contact were associated with positive changes. Donaldson (1980) suggested that there might be other factors contributing to the positive attitudinal changes revealed in those studies with structured experiences. However, it seems that the provision of the opportunity for interaction between persons with disabilities and those without identified disabilities will not ensure positive attitudes, but that nonstereotypic attitudes are more likely to emerge than when persons with and without disabilities are of at least equal status (Sherrill, 1998; Slininger et al., 2000).

Tripp and Sherrill (1991) classify contact as a learning/behavior theory and provide a review of literature on studies that appear to examine elements of contact theory. In that accord, Archie and Sherrill (1989) examined the influence of contact and gender on attitudes of typically developing fifth and six-graders toward their peers with disabilities. According to Archie and Sherrill (1989), data were collected in a physical education setting near the end of the school year through administration of the Children’s Attitudes
Toward Handicapped Scale (CATH) (Rapier, Adelson, Carey, & Croke, 1972 as cited by Archie & Sherrill, 1989). The CATH scale consisted of twenty characteristics, each stated in a positive, neutral, and negative way (Rapier et al., 1972 cited by Archie & Sherrill). The characteristics were as follow; lots of fun are fun, are not fun, don’t need help, need help, and need lots of help (Archie & Sherrill, 1989). The participants circled the descriptions that best represented what they thought children with disabilities were really like (Archie & Sherrill, 1989). They found that there were no significant differences by contact or gender. The overall findings in Archie and Sherrill’s study were mixed and failed to support Allport’s (1954) hypothesis that contact would result in favorable attitudes, despite the fact that these students believed that their peers with disabilities were fun and interesting. However, after further probing, with an item-by-item analysis, Archie and Sherrill reported that mainstreamed students believed that the students with disabilities were more fun and more interesting than did nonmainstreamed students. An analysis of the positive responses only suggested somewhat more favorable attitudes associated with contact in school (Archie & Sherrill, 1989). Interviews with the principal and teachers revealed that several assumptions were guiding mainstreaming practices. These assumptions were; children with disabilities were viewed as peers of equal status, integrated physical activities were meaningful and satisfying, and contact was contributing to positive attitudes (Archie & Sherrill, 1989). According to
Archie and Sherrill (1989), their findings provide evidence that such assumptions may lack validity. In addition, dependence upon contacts that occur naturally and suddenly is not necessarily effective (Archie & Sherrill, 1989). It is suggested that further examination of the effects of contact concentrate on personal and situational variables that may improve positive contacts and guarantee that persons with disabilities are viewed as equals (Archie & Sherrill, 1989).

Sherrill, Heikanaro-Johanssson, and Slininger (1994) discussed equal status relationships in physical education and spoke of a physical education specialist, who had two or three children with mental disabilities, integrated into her regular fourth and fifth grade physical education classes. In their study, the physical education specialist enjoyed the experience so much, that she based her master’s degree thesis (Archie, 1983) on the experience. The new students in her class fit in and showed improvement in motor skills and fitness similar to that of the their classmates (Sherrill et al., 1994). The physical education specialist did not have to change her teaching style or content, although she had to assign partners to the new students. In addition, everyone believed that the daily contact between children with and without disabilities would promote positive attitudes (Sherrill et al., 1994). Data analysis revealed non-significance, that is, both the mainstreamed and non-mainstreamed children scored similarly on the unidimensional attitude scale,
indicating a neutral rather than good feeling. However, item-by-item analyses showed mainstreamed students were different from the other students who were not mainstreamed on two measures. Daily contact had enabled these students to see their peers with disabilities as "more fun" and "more interesting" than did nonmainstreamed students (Sherrill et al., 1994).

Another physical education teacher already had two or three students with disabilities in his class, to whom he had made accommodations. However, he had a new challenge, non-ambulatory students with limited ability to communicate and socially interact were being included in his classes (Sherrill et al., 1994). This teacher had no idea what to do with these particular students and asked for help from the special education director, but eventually decided to create lesson plans to systematically involve the children with and without disabilities in cooperative movement activities (Sherrill et al., 1994). In addition, this teacher's ideas became his master's thesis (Slininger, 1993). The thesis involved the comparison of fourth graders without disabilities in three different physical education settings (structured contact, unstructured contact, and no contact) toward peers who were severely mentally retarded (Sherrill et al., 1994; Slininger, 1993). He developed and tested 20 lesson plans to use at the beginning of a semester to encourage inclusion and produce positive attitudes. The activities were large-group cooperative games and rhythmic activities in which everyone could
have a great time. The statistical findings for Slininger (1993) were similar to Archie’s (1983) results in that the fourth graders in the three types of settings had similar attitudes at the end of the study (Sherrill et al., 1994). It was found that the specifically designed cooperative activities did not cause observable, measurable difference. In other words, these activities could have been more interactive, more individually based (one to one). In conclusion, both physical educators Archie (1983) and Slininger (1993) felt that structured contacts with people who are different and the focus on equal status are keys to integration/inclusion (Sherrill et al., 1994).

Research suggests that contact between individuals considered “different” makes little difference in overall attitudes and behaviors unless the contacts are recurrent, interactive, enjoyable, focused on common goals, significant, and equally respectful (Sherrill, 1998). Sherrill et al. (1994) described equal status as the bi-directional relationship with persons of approximately the same age who learn to respect and care about each other as they explore ways that each can contribute equally to the achievement of a common goal. In equal status relationships, both partners feel they are benefiting and find contact satisfying and self-actualizing (Sherrill et al., 1994). The equal status principle derives from the theoretical foundation known as contact theory (Allport, 1954).
Many students without disabilities and general physical educators have real concerns regarding the inclusion of students with severe disabilities in general physical education (Block & Zeman, 1996). Block and Zeman (1996) asked the question, "How do students without disabilities feel about the inclusion of students with disabilities in their physical education classes?" Students with mild to moderate disabilities in the United States, Canada, and in many Scandinavian countries have been placed in general physical education for many years (Block & Zeman, 1996). In such cases teachers have been able to make adaptations for students with mild to moderate disabilities that are included in their general physical education classes (Rarick & Beuter, 1985). Rarick and Beuter (1985) found that children with moderate mental retardation included in general physical education showed greater gains in motor performance compared to children with moderate mental retardation in self-contained physical education classes. In addition, there was no indication that including such students in general physical education negatively affected students without disabilities (Block & Zeman, 1996). According to Block and Zeman (1996), advocates of inclusion often focus on the impact inclusion has on students with disabilities rather than without disabilities.

Block and Zeman (1996) examined the impact of including three 6th grade students with severe disabilities who were given support services into a
general physical education class. The study focused on the impact of inclusion on motor skill development and the attitudes of students without disabilities toward their peers with disabilities. The sample included two intact 6th grade physical education classes from a middle school (grades 5 and 6) in a small midwestern city. The experimental group (C1) consisted of 28 students (12 female and 16 male), three who had severe mental retardation. These three students with disabilities had been included in this physical education class as well as the majority of academic classes for three months prior to the study. The control class (C2) also consisted of 28 students (15 females and 13 males); none of these students had any known disabilities. In both C1 and C2, the same general physical educator provided daily physical education instruction. Moreover for C1, an adapted physical educator and two teacher assistants who were assigned to the three students with disabilities provided daily support. Furthermore, the three students with disabilities had Individualized Education Programs (IEP). The physical educator assisted in developing and implementing modifications to all physical education activities as warranted, directed teacher assistants in assisting students with disabilities, and conducted ongoing evaluations of the students with disabilities. Block and Zeman (1996) hypothesized that with support, such as: peers, teacher assistants, an adapted physical education specialist, and the use of adaptive equipment, the effects of inclusion on motor skill performance would be minimal. Further, they hypothesized in
accord with contact theory, that students without disabilities who were systematically exposed to students with disabilities would have favorable attitudes towards inclusion in physical education.

Block and Zeman (1996) reported that the classes (C1) containing students with disabilities had much more favorable attitudes toward including students with severe disabilities in general physical education as well as toward modifying the basketball game rules that they played compared to the control group (C2). It is important to remember that the C1 group who had students with disabilities, had been included in the physical education class for three months prior to the study being conducted. This is an indication that the higher pretest scores may be a result of the student's positive experience prior to the conduct of Block and Zeman's (1996) study. These findings are consistent with other studies on attitudes in which systematic exposure to students with disabilities were found to be positive. While the results of the attitudes measured in this particular study (Block & Zeman, 1996) reflect positive attitudes towards students with disabilities, it is important to focus on the amount of support provided and how it may have had a great affect on the students without disabilities perceptions of their peers with disabilities.

The previous study (Block & Zeman, 1996) provided empirical evidence of the success story of a student named Jimmy, who was included in a general physical education class. Because of the support Jimmy received, the
general physical educator never had to voice any opposition to having Jimmy or two other students with severe disabilities in his general physical education classes (Block & Zeman, 1997). Jimmy seemed to have a good relationship with all the students in his class and never shied away from interacting with or assisting other students with disabilities. The students with disabilities also did not seem to mind having Jimmy or the other students with severe disabilities in their physical education classes (Block & Zeman, 1997). These children had favorable attitudes towards their peers with severe disabilities (Block & Zeman, 1996). In fact, these children looked for Jimmy and their peers with severe disabilities to be their partners in various physical activities. No one complained or showed body language that would suggest that they did not want Jimmy or the other students with severe disabilities in their classes. During one of the basketball games played in a particular class, one of Jimmy's teammates on the sideline, started yelling to Jimmy's teammates on the floor, “Pass the ball to Jimmy! Pass the ball to Jimmy.” The ball was then passed to Jimmy and he carried it over to his basket and without hesitation easily placed it in. This is a true story about a boy named Jimmy who continues to be successfully included in general physical education (Block & Zeman, 1997).

Jimmy had a great amount of support at the time of the beginning of the basketball unit however, by the end of the basketball unit, his assistant
provided less and less support allowing the general physical educator and Jimmy's peers to take responsibility for him. The adapted physical educator was used as a consultant to the general physical educator rather than assisting Jimmy in activities. By the end of the unit, Jimmy’s peers without disabilities were assisting him in all of the basketball games (Block & Zeman, 1997). Although this may not be true for all students with disabilities included in physical education, it does provide some support to the argument that students can have positive attitudes about inclusion in a general physical education program (Block, 2000).

Much of the research and writings related to disability issues in physical education have been taken from the perspective of the teacher (Block, 1996). In relation to the inclusion of students with disabilities in physical education classes, there is great emphasis on legislative guidelines, teaching strategies, and curricular adaptations, but very little regarding the student’s with disabilities viewpoints (Blinde & McCallister, 1998). Although there has been some research on student outcomes in inclusionary physical education programs, rarely does it focus on the experiences and perspectives of students with disabilities (Blinde & McCallister, 1998; Webb, 2000).

Therefore, Blinde and McCallister conducted a study to explore past and current sport and physical education experiences of students with disabilities. Students with physical disabilities were recruited from school systems in a
two-state region. Administrators at several elementary, junior high, and senior high schools in this region were contacted to obtain consent to interview students regarding their experiences in sport and physical education (Blinde & McCallister, 1998). A set of interview questions were developed and twenty students between the ages of 10 and 17 completed usable tape-recorded interviews. The 20 participants represented 17 different school systems (Blinde & McCallister, 1998). Although Blinde and McCallister's study was not representative of all children and adolescents with disabilities, the sample provided in-depth information about the experiences of a group of students rarely interviewed that is, students with disabilities.

Blinde and McCallister (1998) discussed the students' range of experiences and emotions in relation to the two variables that the study focused on; participation and emotional responses. Participation dealt with the students having limited participation opportunities in class because the activities were not adapted to meet the needs of students with disabilities (Blinde & McCallister, 1998). The students' experiences in their physical education classes ranged from inclusion to total exclusion from the class altogether. For example, one particular student with cerebral palsy was most involved in her class and said that physical education was fun. As for other students interviewed, their experiences were quite different. When asked whether they participated in physical education at their school, one student
responded, “I did once, but I, I was just [a] line judge” (Blinde & McCallister, 1998). Another student responded, “I just sat there and watched and cheered on and did all that” (Blinde & McCallister, 1998).

In relation to the negative responses found in the study, the students with disabilities’ negative responses were triggered mostly because of their exclusion from class activities or unpleasant social interactions (Blinde & McCallister, 1998). Exclusion from class activities led many students to feel like outsiders in the class and unwelcome by peers. A seventh grader with muscular dystrophy talked about being unable to play all the games in his physical education class. He stated that sometimes “they just don’t ask me to play” (Blinde & McCallister, 1998). In addition to negative responses, some students felt sadness and anger. One student who was a sixth grader was prohibited from playing when he did not bring his power chair to class. When asked how this made him feel, he responded “angry” and “so sad.”

It was concluded that active participation and meaningful participation ought to be provided for every student. Furthermore, no student should leave the physical education class with the negative experiences and emotions as expressed by some of the students mentioned in the Blinde and McCallister’s (1998) study.

Along these lines, Webb and Pope (1999) addressed the issue of inclusion and equity in general physical education and discussed how more attention
needs to be directed towards the individual (behavior and/or attitude) level and the collective cultural level. They believed that such behaviors could collectively develop into wider cultural issues. Many subgroups in general physical education classes are often troubled because of their race, gender, social class, ethnicity, or level of motor ability, particularly low-skilled individuals (Webb & Pope, 1999). Such concerns are usually brought on because of attitudinal beliefs of others.

According to Dodds (1986), the absence of equity in the classroom is marked by “unfairness to some students, either from expectations that are too high, too low, or too different from the socially acceptable norms for their group membership.” In addition, most general physical education classes isolate those low-skilled students from physical activities and have more negative experiences than their high skilled peers (Webb & Pope, 1999). It is important for physical educators in regards to inclusion to examine whether students are participating successfully in physical education and whether such inclusion have a negative or positive affect on the students (Webb & Pope, 1999).

Murata, Hodge, and Little (in-press) conducted a study that described the effects of inclusion on the attitudes, experiences, and perspectives of individuals without disabilities toward their peers with disabilities. This study was conducted several years after the students had been educated together in
the same physical education classes (Murata et al., in-press). The participants were purposely selected from students who had participated in a previous physical education inclusion-based study (Murata, 1995). The Murata et al. (in-press) study used semi-structured, open-ended telephone and face-to-face interviews for data collection purposes. Again, the participants (n = 12) were purposely selected to participate in the follow-up study due to their involvement in Murata’s (1995) original study. More specifically, these participants had been a part of an earlier investigation that involved a general physical education teacher, paraprofessionals, and peer tutors as supports for students with multiple disabilities in an inclusion-based physical education program (Murata, 1995). The original study examined the effects of support personnel (paraprofessionals and peer tutors) on Academic Learning Time-Physical Education (ALT-PE) of students with and without disabilities in an inclusive physical education program. The participants in the original study were students without disabilities (n = 22), who were 16 males and 6 females in a 9th grade physical education class during the school year 1994-95 with six students who had multiple disabilities. From the previous study (Murata, 1995), twelve (54%) of the twenty-two students without disabilities were located and agreed to participate in the follow-up study (Murata et al., in-review).
Three themes became apparent regarding the attitudes of the students without disabilities: (1) initial skepticism, (2) direct interaction, and (3) appreciable differences (Murata et al., in review). These three themes revealed that the individuals without disabilities developed favorable attitudes towards their peers with disabilities who were included in their general physical education classes (Murata et al., in-review). For example, initial skepticism was characterized as participants feeling uncomfortable and uneasy when interacting with their peers with disabilities but soon they felt comfortable and at ease with their peers with disabilities. In relation to direct and positive interaction, the participants believed that direct and positive interaction with their peers with disabilities created an overall good experience (Murata et al., in-review). Furthermore, these participants suggested that their inclusive general physical education classes allowed them to work along side their peers with disabilities cooperatively. Moreover, these participants stated that having peers with disabilities in their classes was very different, and that they were impressed in how well their peers with disabilities were able to successfully participate in class. The participants said they were “open-minded” with respect to differences among their peers, which led them to appreciating the differences between themselves and their peers with disabilities (Murata et al., in-review).
Murata et al. (in-review) study supports the advocacy that inclusive physical education can be a successful place for all students when undertaking favorable conditions. Such favorable conditions should include an environment where respect for others is encouraged, rewards and pleasant experiences using noncompetitive activities are being used, and common goals are recognized that support interactive participation for all, leading to meaningful physical education experiences and growth in friendships (Murata et al., in-review; Sherrill, 1998). Moreover, the findings in Murata et al. (in-review) study supported contact theory, which posits that under favorable conditions contact promotes positive and relatively secure attitudes toward peers with disabilities. In addition, the initial skepticism found in the Murata et al. (in-review) study can be addressed when contact occurrences between individuals with and without disabilities are frequent, positive, beneficial and fun. Furthermore, the individual differences noted between peers with disabilities and without disabilities were accepted and appreciated years after by the individuals who had a positive experience in an inclusive physical education program (Murata et al., in-review).

Along similar lines, Tripp, French, and Sherrill (1995) conducted a study that examined contact theory by comparing total and subscale attitudes of children toward peers with disabilities (physical, learning, behavioral) in integrated (contact) and segregated (non-contact) physical education settings.
The participants were 455 children ages 9-12 years; 119 girls and 107 boys in the integrated setting and 122 girls and 107 boys in the segregated setting. A total of 226 students in integrated physical education and 229 students in segregated physical education were included in the study (Tripp et al., 1995). The integrated school physical education program included 21 children with disabilities in Grades 4 to 6. Out of the total 21 students with disabilities, 7 had physical disabilities, 10 had learning disabilities, and 4 had behavioral disabilities. The segregated school had no students with identified disabilities.

The Peers Attitudes Toward Handicapped Scale (PATHS) (Bagley & Green, 1981 cited by Tripp et al., 1995) was used as the data collection instrument. The instrument was designed for use in school settings to measure the attitudes of youths, 9 to 16 years old, toward their peers with disabilities. The purpose of PATHS is to measure expressed attitudes toward students with disabilities as respondents make qualitative judgments about behavior descriptions (Bagley and Green, 1981 cited by Tripp et al., 1995). The PATHS instrument is based on the theory (contact theory) that teaching students with and without disabilities in the same setting primarily depends upon the development and continuance of positive attitudes toward students with disabilities on the part of the nondisabled students (Tripp et al., 1995). Tripp et al. (1995) reported that no differences in overall attitudes towards peers with disabilities were apparent between the children who participated in
an integrated versus segregated physical education setting with regard to their total attitude score on the PATHS. According to Tripp et al. (1995), these findings support other research, which disclose that children who attend an integrated school program do not view peers with disabilities differently than do children attending a segregated school program (Archie & Sherrill, 1989). This particular study (Tripp et al., 1995) did not support the idea that contact with children with disabilities in a physical education setting is necessarily associated with overall or total scale attitude scores toward peers with disabilities. Importantly, Yuker (1988) concluded that contact between individuals must be direct and personal to help create positive attitudes. The children that attended the integrated school may have perceived their contact with their peers with physical disabilities as negative (Tripp et al., 1995).

In relation to contact theory, a factor that may foster negative attitudes is competition (Amir, 1969). Mostly all physical education classes contain some type of competition, but it is important to modify competitive activities in order to have equality in the classroom, upon which, positive attitudes have a chance to develop (Tripp et al., 1995). This suggest that more research needs to be done in regard to different factors that may influence attitude changes of students without disabilities towards their peers with disabilities. In addition, researchers also need to examine environmental and methodological conditions in inclusive physical education programs (Tripp et al., 1995).
Changing Children’s Attitudes and Behaviors

According to French, Mastro, and Jackson (1988), it has been suggested that placing students with and without disabilities in the same physical environment will not guarantee the development of positive attitudes. However, a key to changing behaviors toward persons viewed as different are our attitudes toward them. This is a critical objective of adapted physical activity, integration, and inclusion (Sherrill, 1998; Slininger et al., 2000). Physical education programs can be specially designed to rid problems that may exist. For example, it has been reported that peer tutoring in physical education is an effective means of improving attitudes of students without disabilities toward peers with disabilities (French et al., 1988). Below are a few activities that have been created to help foster favorable attitudes in inclusive physical education classes; (1) provide opportunities to observe or experiment with equipment that is used by individuals with disabilities, (2) observe or participate in an activity with individuals with disabilities, (3) invite a sports figure who has a disability to speak to the class, (4) include games that are complicated and not exclusive to individuals with disabilities, and (5) incorporate the game analysis approach into the physical education program (French et al., 1988; Marlowe, 1979). Moreover, in recent years there has been much support from legislation targeted for persons with disabilities and their participation in physical education (IDEA, 1997),
physical educators need to promote positive attitudes in their physical education classes. Providing direct service is a key to changing attitudes by creating an appropriate physical education environment for all students (French et al., 1988).

Block (1998) also argued that there are solutions that promote better socialization between persons with and without disabilities in physical education, which in turn may produce positive attitudes towards each other. In that vein, Block (1998) discussed the use of peer tutors and how they can serve as tutors as well as friends. Physical educators can create situations in which students with disabilities can serve as tutors also. This is known as the reciprocal style of teaching or class wide peer tutoring (Sherrill, 1998). In addition to being peer tutors, Block (1998) argued that students should also be put in situations where students without disabilities are just friends and not tutors with students with disabilities. Such relationships would be in accord with having equal status in the physical education classes (Sherrill et al., 1994). Block (1998) also mentions the appropriateness of activities so that all students, including those students with disabilities, can successfully participate in general physical education classes. Lastly, several researchers have advocated training teacher assistants so that they understand the student’s disability, his or her capabilities and limitations (Block, 1998; Murata & Hodge, 1997). Furthermore, it is also important that teaching
assistants allow students with a disability in some cases to explore on their own as opposed to assisting them with all physical education activities in the class (Block, 1998).

Recently, Block and Brady (1999) provided additional solutions to promote positive attitudes that can help produce positive behaviors in an inclusive physical education program. In addition to peer tutoring, creating appropriate physical activities, and training teacher assistants, Block (2000) encourages teachers to prepare students without disabilities for students with disabilities who will be participating in their general physical education program. It is necessary for teachers to explain to students without disabilities how to interact with specific children with disabilities, such as communicating, how to include the students in activities, and how to befriend the student by giving good feedback, high-fives, and encouraging their peers to be a part of their team. Although including students with disabilities into general physical education can be a great benefit, it is necessary to prepare those who will come in contact with students with disabilities so that it is a positive learning experience for everyone (Block, 1998).

The extant literature suggests that under favorable conditions positive attitudes can be fostered. However, there is a need to conduct more research in this area in regard to students with and without disabilities in inclusionary physical education programs. There are common themes within the
inclusionary attitudinal literature relative to physical education contexts. Often these themes are born within the foundation of contact theory (Allport, 1954). Such conditions in relation to the current study are factors that can lead to positive attitudes; the importance of consistent contact between peers with and without disabilities, equal status relationships, a structured environment, support services, and appropriate physical activities that promote positive relationships (Sherrill, 1998; Slininger et al., 2000). All of these factors can be considered favorable conditions in which, in turn, can promote positive attitudes and behaviors. However, this does not mean that under such conditions positive attitudes are always produced. In addition to the variables of favorable and equal status conditions, the literature also discusses factors that can lead to negative attitudes, which are the result of historically stereotypical views about persons with disabilities (Amir, 1969). Often time, in physical education classes, such negative attitudes surface because of the inclusion of students with disabilities who are at many different skill and cognitive levels. Students without disabilities ought to learn how to accept peers with disabilities and participate with them in their daily physical activity routines.

The studies that have been discussed in this paper, have given many reasons to why students with disabilities have positive and negative experiences in general physical education, in addition to ideas of how to
promote positive attitudes. However, when examining persons with disabilities it is imperative to examine the individual and not generalize to all persons with disabilities. What may be positive for one individual may not be the same for another individual. Therefore, researchers must continue to conduct studies that examine inclusive physical education settings and the many factors that contribute to its success or downfall. In that vein, Sherrill (1998) and Slininger et al. (2000) advocated the use of contact theory in physical education research relative to attitudinal and inclusion-related variables.

Theoretical Framework

The structured contact elements of contact theory (Allport, 1954) will be used in this study to better understand and explain the attitudes and behaviors of students with and without disabilities towards their peers in an inclusionary physical education program. In brief, contact theory asserts that direct contact between individuals with differences creates positive attitudes when such interactions are frequent, pleasant, and meaningful (Allport, 1954; Amir, 1969; Slininger et al., 2000). See Figure 1 for an illustration of the contact theory model (Sherrill, 1998).

For example, one benefit supported by contact theory is that, through pleasant and meaningful integration of students with disabilities into general physical education programs, students without disabilities will develop
positive attitudes (Allport, 1954; Tripp et al., 1995). Most theorists agree that contact is an important dimension in attitude formation (Allport, 1935; Amir, 1969; Yuker, 1988). The direction of change depends mostly on the conditions under which contact has taken place; favorable conditions tend to create positive attitude shifts while unfavorable conditions tend to create negative attitude shifts (Amir, 1969; Tripp & Sherrill, 1991).

For instance, favorable conditions that help create positive attitudes include when (a) there is equal status contact, (b) the social environment encourages contact, (c) the contact is pleasant or rewarding (d) interactive experiences are encouraged (e) and contact is friendly, cooperative, and focuses on common goals (Amir, 1969; Sherrill, 1998; Sherrill et al., 1994; Tripp & Sherrill, 1991). Conversely, direct contact does not necessarily create positive attitudes, which can be attributed to poor planning and an inadequately structured or non-structured environment (Amir, 1969; Sherrill et al., 1994). Again, the current study will focus on the structured contact variables (i.e., frequent, interactive, pleasant, common goal focus, meaningful, promoting respect via equal status, and long term) relative to understanding and explaining to attitudes.

In sum, the current study sought to gain additional insight on the attitudes and behaviors of students with and without disabilities in a general physical education program toward inclusion. It was anticipated that the results of the
current study would help professionals and researchers in the field of physical education better understand inclusion and its' impact on attitudes and behaviors of students with and without disabilities.
Figure 1: A Model for Attitude Change Using Contact Theory (Sherrill, 1998).
CHAPTER 3

METHODS

This chapter provides a discussion of the procedures used in the conduct of the current study. Specifically, the chapter includes a descriptor of the participants, research site and setting, research design, instrumentation, data collection, and the chapter concludes with a discussion of data analysis. For additional clarity, Table 1 provides a summary of the study methodology in terms of the research questions, data collection instruments and observational sessions, and analysis.

Participants

Participants were selected using purposive sampling (Campbell & Stanley, 1963). These participants \( n = 18 \) included all 6th grade students at a rural midwestern middle school. More specifically, participants were 7 males (38.9%) without disabilities and 9 females (50%) without disabilities. In addition, two participants with disabilities were 1 (5.6%) female with Down
syndrome concurrent with mild mental retardation and 1 (5.6%) male with a physical disability (i.e., juvenile scoliosis).

The participants met all of the following criteria for participation in the study: (1) they were 6th grade middle school students; (2) included in a general physical education (GPE) class; (3) included in an inclusive GPE class consisting of students with mental retardation and/or physical disabilities; and (4) had a signed consent form by a parent or guardian giving permission to participate in the study.

The two instruments (see Instrumentation), CAIPE-R (i.e., used with students without disabilities) and The Inventory (i.e., students with disabilities) were used to secure demographic information on the participants (i.e., students with and without disabilities, respectively). The students recorded their gender, grade level, which teacher they had for physical education, and their age. In addition, the two students with disabilities were asked to self-identify their ethnicity on The Inventory instrument. The students were also asked about the onset of their disability, which in this case their disabilities were congenital. Lastly, participants were asked to report their level of participation in regular (extracurricular) physical activities.

The female student with a disability was a 13-year old described by her mother, teachers, and herself as having Down syndrome and mild mental retardation (see Definitions of Terms). Her teacher and mother described her
as a very social and outgoing child. She has been included in general physical education since kindergarten. She participates in regular physical activities. She enjoys running, jumping rope, line soccer, parachute, acrosports, playing volleyball, singing, and especially dancing. In addition, she participates in cheerleading and ballet outside of school. For purposes of this study she was referred to as “Rita.”

The male student with a disability was a 13-year-old, who was described by his teacher and mother as having a physical disability known as juvenile scoliosis. Juvenile scoliosis is defined as a lateral (abnormal) curvature of the spine (Sherrill, 1998). In his earlier years he wore a brace during physical education. He presently wears a Charleston brace (used for non-weight bearing) to support his back when he is sleeping. However, he no longer wears the brace in physical education as it inhibits his participation. He has been included in general physical education since kindergarten. He loves to play basketball and enjoys dodge ball, parachute, relays, flag football and dancing. For purposes of this study he was referred to as “Ben.”

Research Site and Setting

The research site for this study was an inclusive 6th grade general physical education class that was observed in a rural middle school in a small midwestern town. The physical education classes observed were typically held in a gymnasium. The class was team taught by a male and a female
teacher. The male teacher was a certified physical education teacher in his first year of teaching and the female teacher was a special education teacher, not yet certified in physical education. Her experience with the two participants with disabilities was extensive, as she had worked with both in and out of the physical education setting. For instance, she taught these students with disabilities in her special education classroom, however, the researcher failed to determine how long she had taught these two participants with disabilities.

The class period was from 8:24- 9:17 a.m. (Monday-Friday) and typically consisted of the students changing into their physical education uniforms in the locker room (i.e., whenever the students would get dressed for class) (3 to 5-minutes), warm-up (5-mins.), then the physical activity for the day (25-mins.), and back to the locker room to change clothes (5-mins.). The teachers utilized the gymnasium and an area outside of the building, which consisted of a playing field and blacktop area with basketball goals.

Research Design

This was a descriptive qualitative study with both quantitative (attitudinal mean scores and percentages) and qualitative data collection methods and analyses (observations, field notes, and semi-structured interviews). An intact group was used that consisted of students without disabilities, a child with Down syndrome concurrent with mental retardation, and a child with a
physical disability. Participants with and without disabilities were already included together in a general physical education class. This design was deemed appropriate for this study and strengthened by the use of data triangulation procedures (Patton, 1990).

Instrumentation

For purposes of this study both attitudinal and behavioral instruments were used for data collection in conjunction with non-participant observations (field notes) and follow-up questions using semi-structured interviews. More specifically, Block's (1995) Children's Attitudes Towards Integrated Physical Education-Revised (CAIPE-R), and Webb's (2000b) An Attitude Analysis of Students with Physical Disabilities Toward General Physical Education (The Inventory) instruments were used to secure attitudinal data from students without disabilities (CAIPE-R) and students with disabilities (The Inventory), respectively. In addition, the Analysis of Inclusion Practices in Physical Education (AIPE) (Hodge et al., 2000) observational system was used to measure the occurrence of specific behaviors during physical education classes (Hodge et al., 2000).

In answering research question one, the Children's Attitudes Towards Integrated Physical Education (Block, 1995) was used to assess attitudes of children without disabilities towards their peers with disabilities in inclusionary general physical education classes. The CAIPE-R included a
description of the student with a disability, followed by seven statements regarding the inclusion of the child with disabilities in general physical education classes and five statements regarding specific adaptations to a team sport that would advance inclusion (Block, 1995). The participants responded to each statement on a 4-point Likert-type scale (4 = yes, 3 = probably, 2 = probably no, and 1 = no).

Factor analysis was used to determine construct validity and test-retest was used for reliability on a sample of 44 sixth graders. The CAIPE was revised (CAIPE-R) and given to a second set of study participants (n = 208). Internal consistency was established using Cronbach’s alpha test. The test for general attitude subscale resulted in a standardized item alpha of .78, which indicates good internal consistency. Collectively, these results indicate that the CAIPE-R is a valid and reliable instrument that is generalizable to more than one type of disability and a viable tool for measuring the attitudes of students without disabilities toward including peers with disabilities in general physical education (Block, 1995).

In the current study as part of administering the CAIPE-R (Block, 1995) instrument, the students without disabilities were asked to fill out a two-page demographic information sheet. Furthermore, participants were asked to circle whether they were a boy or girl and to circle yes or no if they had someone in their family who had a disability, circle yes or no if someone in
their P.E. class had a disability, and circle whether they considered
themselves very competitive, kind of competitive, and not competitive. The
second page consisted of an answer sheet with the answers yes, probably yes,
probably no, and no. Directions for circling the responses were as follows;
the researcher asked a series of questions pertaining to the student with a
disability. The students would then circle yes if they agreed with the
question, circle no if they disagreed with the question, probably yes, if they
agreed but were not sure, and probably no if they disagreed but are not sure.
The students were reminded that there were no “right” or “wrong” answers
and it depended on how they felt about what the researcher said.

To address the second research question a behavioral observational
instrument was used. More specifically, student behavioral interactions were
examined using Form S (i.e., Occurrence of Specific Student Initiated
Behaviors - Student Version) of the Analysis of Inclusion Practices in
Physical Education (AIPE) observational system of which is designed to
measure occurrence of specific behaviors during physical, instructional, and
social inclusion practices (Hodge et al., 2000). Content validity was
established through a panel of adapted and general physical education
experts. However, the researchers have yet to establish construct validity
(Hodge, personal communication, June 6, 2000).
Specifically, the *Occurrence of Specific Student Initiated Behaviors*, Form S of the AIPE instrument used for this study measures the occurrence (frequency) of specific student initiated behaviors. The specific initiated behaviors as described on the AIPE instrument are: student initiates or engages in talk (T), student models or demonstrates for peer with disability and/or asks peer with disability to model or demonstrate for her/him (D), student praises peer with disability for effort and/or achievement (P), student uses peer’s (with disability) first name (FN), student give feedback to peer with disability (FB), physical contact with peer with disability such as students asks for “hands-on” help and/or give “hands-on” help to peer with disability and any other physical contacts (H), any other peer interaction between students with and without disabilities (I), and no interaction (N) (Hodge et al., 2000).

This systematic observational instrument was designed specifically for the current study as part of a larger research agenda (S. Hodge, personal communication, June 6, 2000). The instrument follows a similar time interval coding protocol as the *Academic Learning Time for Physical Education* (ALT-PE) (Siedentop, Birdwell, & Metzler, 1979) observational instrument often used in physical education research (Vogler, Koranda, & Romance, 2000). The ALT-PE recording system has been shown to be a highly reliable data collection instrument (Metzler, 1996).
As with the ALT-PE observational system, the AIPE coding instrument is a system based on interval recording techniques in which behavior is recorded after short periods of time, in this case five seconds (Hodge et al., 2000). The observer watches one student per 5-second interval and records the data directly on an observation sheet. Data for all categories (key behaviors) are recorded and expressed as percentages of the total observed time (total number of seconds) per class period. For example, if a student without a disability provided feedback to a peer with a disability, FB (feedback) was recorded. Whereas if a student unjustly criticized the performance of her peer with a disability, FB was recorded and circled to indicate behavior that was inappropriate (Hodge et al., 2000).

To gain insight relative to the third research question, *The Attitude Inventory of Students with Disabilities in General Physical Education*, also called *The Inventory* (Webb, 2000b), was used. *The Inventory* was originally designed to measure the attitudes of students with physical disabilities towards inclusion into general physical education classes. The current researcher semantically adapted the instrument to make no reference to disability type and therefore allowed for use of the instrument in assessing the attitudes of students with physical and mental disabilities. There were three sections with two subscales for *The Inventory*. The first subscale consisted of five (5) Likert-type statements relative to the respondent’s
attitudes towards his/her peer without disabilities in GPE; the second subscale consisted of five (5) Likert-type statements related to the respondent’s attitude towards the physical education teacher in his/her GPE class; and the third section (i.e., demographics) consisted of nine (9) statements which pertained to demographic information about the student respondents.

In this study, a 6-point Likert-type scale was used, for example; 1-SD, for strongly disagree; 2-MD, for moderately disagree; 3-SLD, for slightly disagree; 4-SLA, slightly agree; 5-MA, for moderately agree; and 6-SA, for strongly agree, with no neutral point. The students were asked to circle the response which best corresponded to their agreement to each statement. A five to seven point scale is appropriate for measuring attitudes of middle school age children, according to Fishbein and Ajzen (1975) and Webb (2000a).

A panel of experts (two of whom were authors of their own attitudinal instruments) examined The Inventory instrument for face and content validity. These experts were three adapted physical education (APE) professors, and four APE/GPE teachers (2 from middle schools, and 2 from high schools) in a midwestern district (Webb, 2000a). Reliability measures on The Inventory instrument were determined using test-retest reliability to establish stability over time. Each statement under each section was read to
the participant, and then the participant expressed his/her agreement with each statement. It was determined that The Inventory was a valid and reliable tool for measuring attitudes.

In the current study, the researcher instructed the students before answering the questions not to skip any questions and circle only one response per question. Students were told at the outset that all responses would be kept confidential. Scoring for The Inventory used a 6-point coding system in which attitudes perceived as positive received a six (6), and attitudes perceived as negative received a one (1). The rating for each statement for each participant was summed to obtain subscale attitude scores and a total scale attitude score (possible total scores ranging between 10 to 60). In short, a high total score for each subscale indicated an overall positive perceived social interaction (i.e., contact) in an inclusive GPE context. In contrast, a low total scale attitude score indicated an overall negative attitude perceived social interaction (i.e., contact) (Webb, 2000a).

In this study, data collected from each of the aforementioned instruments were used for purposes of gaining new knowledge about the attitudes and behaviors of students with and without disabilities within an inclusive general physical education program at a rural middle school. In addition, the current study sought to provide information that will help physical educators create a
safe, satisfying, and successful physical education program where all students can be included and learn.

Data Collection

In the 2000 spring term, eighteen middle school students were purposely selected from a rural middle school. Surveys, observations, and interviews were used to collect attitudinal and behavioral data. Parental consent forms were completed for their child’s participation in the study. Upon agreement to participate, the school building principal and the physical education teacher of the students participating were informed of the purpose of the study, expectations of the data collection, and the approximate time necessary to participate. Data collection involved both quantitative and qualitative strategies.

More specifically, over the course of two weeks two attitudinal inventories (CAIPE-R, Block, 1995 and The Inventory, Webb, 2000b) were administered in addition to the generation of field notes via non-participant observations, use of a behavioral instrument (i.e., AIPE instrument, Hodge et al., 2000) and semi-structured interviews. On the first day of observations, all students without a disability (i.e., all students who were present on that particular school day) were administered the CAIPE-R inventory by the researcher. While at the same time, The Inventory scale was administered
(read only) to the two students with disabilities by a doctoral student, who
was also in the field of physical education and conducting research at the site.

Only data from those students (n=18) who had returned signed consent
forms from their parents, inventories were used in this study. A total of six
observations (i.e., three lessons for each of the two students with a disability)
were conducted. During this time frame the current researcher using the
AIPE instrument (Form S) coded student behaviors.

At the completion of each final observation period for each student with a
disability, respectively, the researcher conducted a semi-structured interview.
The independent interviews consisted of follow-up questions in relation to
how the students had responded to the questions on The Inventory scale. The
students were probed as to why they answered a particular way or what/how
they felt about a particular statement on the attitudinal instrument. Using this
strategy, the semi-structured interview follow-up questions were derived
directly from participants’ responses to items on The Inventory scale (see
Table 4 and Appendix F).

Data Analysis

The data were analyzed using both quantitative and qualitative methods.
The quantitative analysis consisted of a Likert-type scale attitudinal scores
derived from the Children’s Attitudes Toward Integrated Physical Education
(CAIPE-R) (Block, 1995) (i.e., used with students without disabilities) and
The Inventory (Webb, 2000b) (i.e., used with a child with mental retardation
and a child with a physical disability) instruments. The scale scores for the
CAIPE-R instrument were expressed as mean scores for the responses of the
participants without disabilities. In relation to The Inventory, the participants’
with disabilities raw scores were presented. In addition, student behaviors
were coded and calculated as percentages of occurrences obtained via
observations using Form S of the Analysis of Inclusion Practices in Physical
Education (AIPE) instrument (Hodge et al., 2000).

Qualitative data included descriptive narratives based on themes emerging
from content analysis derived from the participants’ with disabilities
responses to items on the Inventory scale. More specifically, open-ended
follow-up questions were asked during semi-structured interviews that were
generated from the participants’ with disabilities responses to items on The
Inventory attitudinal scale. Subsequently, content analysis (Patton, 1990) was
conducted using responses from Block's (1995) CAIPE-R (child with mental
retardation or physical disability) and Webb's (2000b) The Inventory
instruments. See Table 1 for a summary of the study methodology as related
to the research questions, instruments used, data collection sessions and
analysis.
<table>
<thead>
<tr>
<th>Research Question</th>
<th>Instruments</th>
<th>When/How Often</th>
<th>Analysis</th>
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<tbody>
<tr>
<td><strong>Research Question 1</strong>&lt;br&gt;What are the attitudes of students without disabilities towards their peers with disabilities in an inclusive physical education setting?</td>
<td><em>Children's Attitudes Toward Integrated Physical Education</em>&lt;br&gt;CAIPE-R (Block, 1995)&lt;br&gt;(Student with mental or physical disability)</td>
<td>Post-Test Only (CAIPE-R)</td>
<td>Quantitative Data:&lt;br&gt;CAIPE-R&lt;br&gt;Mean attitude scores and SD</td>
</tr>
<tr>
<td><strong>Research Question 2</strong>&lt;br&gt;What are the behaviors of students in inclusive physical education classes?</td>
<td><em>Analysis of Inclusion Practices in Physical Education</em>&lt;br&gt;AIPE (Hodge et al., 2000)&lt;br&gt;Non-participant observer&lt;br&gt;Daily non-participant observations</td>
<td>Post-Test Only (AIPE)</td>
<td>Quantitative Data:&lt;br&gt;AIPE frequencies and percentages&lt;br&gt;Field notes</td>
</tr>
<tr>
<td><strong>Research Question 3</strong>&lt;br&gt;What are the attitudes of students with disabilities towards their peers without disabilities in an inclusive physical education setting?</td>
<td><em>The Inventory</em>&lt;br&gt;(Webb, 2000)&lt;br&gt;(Semantically Modified)</td>
<td>Post-Test Only (The Inventory)</td>
<td>Quantitative Data:&lt;br&gt;The Inventory&lt;br&gt;Mean attitude scores and SD&lt;br&gt;Qualitative Data:&lt;br&gt;Semi-structured interviews with follow-up questions based on inventory responses.&lt;br&gt;Descriptive narratives based on common themes emerged from interviews.</td>
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Demographics

Table 1: Summary of Study Methodology.
CHAPTER 4

RESULTS AND DISCUSSION

This chapter presents the results with a discussion relative to the study purpose and research questions. More specifically, this chapter is divided into the following sections: introduction, descriptive results based on the attitudinal survey instruments, observational data of specific behaviors, and themes derived from participants' responses to semi-structured interviews follow-up questions.

Introduction

The purpose of this study was to examine the attitudes and behaviors of 6th grade students with and without disabilities, from a rural middle school, who participated in an inclusionary physical education program. The primary research questions to be answered in this research study were:

1. What are the attitudes of students without disabilities towards their peers with disabilities in an inclusive physical education setting?
2. What are the behaviors of students in inclusive physical education classes?

3. What are the attitudes of students with disabilities towards their peers without disabilities in an inclusive physical education setting?

Efforts to answer the research questions included attitude measures, systematic observations, field notes, and semi-structured interviews. There were a total of 18 middle school students (6th grade) who participated in the study. Sixteen of these students were without disabilities and two students had disabilities. These two students were referred to as Rita, who had Down syndrome concurrent with mild mental retardation, and Ben with a physical disability (i.e., juvenile scoliosis). Moreover, Rita and Ben were the target students who were later interviewed.

The CAIPE-R instrument was administered to assess the attitudes (mean scores) of the students without disabilities towards their peers with disabilities. In addition, the AIPE instrument was used to code interactions and other related behaviors (frequency and percentages) of the students. The Inventory (Webb, 2000b) was administered to assess the attitudes (mean scores) of students with disabilities towards peers without disabilities and their teachers. Field notes were also taken as the observations were conducted and semi-structured interviews were conducted at the end of the final data collection session for each of the participants with a disability. Results are
discussed in relation to the structural contact variables of theoretical framework (contact theory) of the study.

Results of Students without Disabilities Attitudes

The following results concern the attitudes of students without disabilities towards their peers with disabilities as assessed using Block’s (1995) CAIPE-R instrument (scale scores were: 4 = yes [highest], 3 = probably yes, 2 = probably no, and 1 = no [lowest]). As indicated in Table 2 descriptive statistics (mean scores and standard deviations) revealed that across both disability types (i.e., mental retardation and physical disability), participants without disabilities displayed similar positive attitude mean scores of 3.9 and 3.6 respectively on item 1 (i.e., “It would be OK having Rita/Ben come to my P.E. class”). On items 3, 4, and 5, the participants without disabilities responded positively (yes to probably yes) towards Rita/Ben’s overall participation in class. For example, item 3 (i.e., If we were playing a team sport such as basketball, it would be OK having Rita/Ben on my team) had a mean score of 3.5 (yes) for Rita with mental retardation (MR) and a mean score of 3.2 (probably yes) for Ben with a physical disability (PD).

In addition to the statements regarding the inclusion of the child with disabilities in general physical education, the participants without disabilities responded with a mean score of 3.3 (Rita) and 3.1 (Ben) on item 6 (i.e., “If Rita/Ben were in my P.E. class, I would like to help her/him practice and play...
the games”). Furthermore, in relation to specific adaptations to a team sport, the participants without disabilities overall had strong to somewhat positive attitudes. Items 9, 10, and 11 discuss the type of adaptations made to games. For instance, the mean score for item 9 (3.6), item 10 (3.8), and item 11 (3.1) were the same for Rita with mental retardation and Ben with a physical disability. However, for item 7 (i.e., “Rita/Ben could hit a ball placed on a batting tee”), the mean score for Rita (MR) was 3.1 (probably yes), to the contrary, Ben’s (PD) score was 1.5 (probably no). Relatedly, for item 8 (i.e., “Someone could tell Rita/Ben where to run when she/he hits the ball”), the scores also differed, 2.7 (probably no) for Rita and 3.4 (probably yes) for Ben respectively. The plausible explanation for the difference in the mean scores for Rita and Ben on items 7 and 8 may be partly due to their disability type. The participants without disabilities may believe that the disability type of their peers with disabilities may have an effect on their performance of those particular skills. Overall, the mean attitude scores measured by the CAIPE-R instrument revealed that students without disabilities held strong to somewhat positive attitudes (yes to probably yes) towards peers with mental retardation and physical disabilities. Interestingly, however, the students without disabilities expressed less favorable attitudes toward Rita (item #8) and Ben (item #7) on specific skill performance behaviors.
<table>
<thead>
<tr>
<th>CAIPE-R Items</th>
<th>Rita (M) (SD)</th>
<th>Ben (M) (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It would be OK having Rita/Ben come to my PE class.</td>
<td>3.9 (0.3)</td>
<td>3.6 (0.8)</td>
</tr>
<tr>
<td>2. Because Rita/Ben cannot play sports very well, she/he would slow down the game for everyone.</td>
<td>2.6 (1.0)</td>
<td>2.5 (1.1)</td>
</tr>
<tr>
<td>3. If we were playing a team sport such as basketball, it would be OK having Rita/Ben on my team.</td>
<td>3.5 (0.8)</td>
<td>3.2 (1.1)</td>
</tr>
<tr>
<td>4. P.E. would be fun if Rita/Ben was in my class.</td>
<td>3.1 (0.9)</td>
<td>3.1 (1.1)</td>
</tr>
<tr>
<td>5. If Rita/Ben were in my P.E. class, I would talk to her/him and be her/his friend.</td>
<td>3.8 (0.4)</td>
<td>3.8 (0.6)</td>
</tr>
<tr>
<td>6. If Rita/Ben were in my P.E. class, I would like to help her/him practice and play the games.</td>
<td>3.3 (0.8)</td>
<td>3.1 (1.0)</td>
</tr>
<tr>
<td>7. Rita/Ben could hit a ball placed on a batting tee.</td>
<td>3.1 (1.3)</td>
<td>1.5 (2.8)</td>
</tr>
<tr>
<td>8. Someone could tell Rita/Ben where to run when she/he hits the ball.</td>
<td>2.7 (1.4)</td>
<td>3.4 (1.2)</td>
</tr>
<tr>
<td>9. The distance between home and first base could be shorter for Rita/Ben.</td>
<td>3.6 (1.0)</td>
<td>3.6 (1.0)</td>
</tr>
<tr>
<td>10. Someone could help Rita/Ben when she/he plays in the field.</td>
<td>3.8 (0.5)</td>
<td>3.8 (0.8)</td>
</tr>
<tr>
<td>11. If the ball was hit to Rita/Ben, the batter could only run as far as second base.</td>
<td>3.1 (1.2)</td>
<td>3.1 (1.3)</td>
</tr>
</tbody>
</table>

Table 2: Students without Disabilities Attitudes Toward Rita with Mental Retardation and Ben with a Physical Disability.
Results of Students’ Interactions within Inclusive GPE

The following results concern the interactions of students with and without disabilities as assessed with AIPE instrument (Hodge et al., 2000). Table 3 presents results relative to Rita and Ben’s interactions with their peers without disabilities. Student behaviors were coded using the AIPE instrument and presented in percentages of each behavior and field notes were also taken and described in detail in relation to specific behaviors emitted. It is important to note that the percentages for Table 3 may not sum to 100% due to the fact that some of the behaviors overlapped and/or occurred simultaneously. For example, the specific behavior, Demonstrate, can also be recorded simultaneously as Talk, if the participant was talking and demonstrating at the same time (Hodge et al., 2000).

Observational Data for Rita

The first lesson observed for Rita included station work; basketball (knockout), four square, and kickball outside on the black top. Stations lasted approximately five minutes and then the students rotated. The special education teacher led a kickball game for this particular station. However, Rita was not dressed for class that day so she was asked by the special education teacher to walk laps around the black top area, but Rita did not follow her instructions. For the entire class Rita sat on some benches adjacent
the playing area, while singing. From time to time she would stand up and dance around by herself. The researcher recorded Rita’s behaviors for this class session as no interaction (100%) because she did not interact with her classmates (Table 3).

According to contact theory’s structured contact variables (Figure 1), to the degree that structured contacts are not provided student engagement in meaningful, interactive, pleasant, and focused common goals will likely not occur (Sherrill et al., 1994; Slininger et al., 2000). This was the case in this study. Rita’s lack of effort to engage in interactions with her peers reduced the likelihood of positive attitudes developing between her and her peers without disabilities, at least for this lesson. The special education teacher appeared not to adequately address Rita’s lack of preparedness (i.e., failure to change into her physical education uniform) for class (field notes). More specifically, the special education teacher did not hold Rita accountable for her actions nor did the teacher provide find alternatives ways to allow Rita to interact with her classmates. Although not dressed properly Rita, for example, could have monitored stations and served as timekeeper.

Volleyball was the second lesson for Rita and she seemed to really enjoy the activity. The physical education teacher randomly chose the teams, Rita was on a team of all females and one male. The teams would rotate to the next net if they won and stayed if they lost, there were a total of four nets set
up. Throughout the volleyball games Rita was verbal with her classmates (Table 3). She would talk (19%) to her classmates either about how she was going to hit the ball if it came to her or how she was going to serve. The majority of the team (classmates) praised (3.7%) Rita for her serves, but retrieved most of the balls hit over the net. When Rita served successfully, the male on her team would say, “Nice serve Rita,” and would give her a high five. A few times her classmates would physically go through hitting the ball with her so she was prepared for the next time it came her way. Rita did not hit most of the balls that came her way, instead, she would just stand there. This accounted for the high percentage in no interaction (68%). Rita’s name was called (2.8%) when she either needed to hit the ball or help block a ball coming over the net. Unfortunately, when she missed the ball a few times, a classmate made criticizing remarks (1%) saying (i.e., “Why can’t you hit the ball”). However, Rita seemed to enjoy volleyball overall, even though she was not that active during the games. In accord with contact theory's structured contact (e.g., teacher directed organized volleyball play with classmates) variables such as frequent interaction, pleasant experience, focus on common goals (e.g., hitting the volleyball over the net), meaningful, and respectful interactions allows for positive attitudes to manifest. It is likely that positive attitudes and relationships would be developed during the volleyball lesson. The physical education teacher for this particular lesson monitored the volleyball games, but could have provided more specific
feedback (e.g., providing verbal feedback in relation to Rita’s involvement)
and/or assist and encouraged Rita to hit the volleyball.

Rita’s third lesson was dodge ball, a game she did not like very much. She
expressed this to the special education teacher who was leading that activity
for the day. Most of the time her talking (32.4%) with classmates was
unidirectional (Table 3). For instance, she received appropriate feedback such
as, “Move to the right Rita,” or “Watch out,” when dodging the balls. Her
interactions (16.2%) during the activity were mostly accidental, running into
other classmates in efforts to dodge the balls. Once again, she had a high
percentage of no interaction (47%), which maybe partly due to the fact that
she did not like dodge ball and would go off to the side not interacting with
the group. Again, for the third lesson, the special education teacher could
have held Rita more accountable and made modifications to the dodge ball
game so that it was more of an interest to Rita. In addition, the teacher could
have provided new ways of engaging in dodge ball to provide additional
opportunities for all students to interact in positive ways.

Observational Data for Ben

The physical education teacher had set up different stations for the first
two lessons in the gymnasium. The stations consisted of handball, scoop ball,
jumping rope, scooter races, hula-hoops, and badminton toss with birdie. The
physical education teacher randomly selected groups to go to a specific
station. Students either worked as partners or solo, depending on the activity at that particular station. The stations lasted approximately five minutes each before students were instructed to rotate.

On several occasions throughout lessons 1 (17%) and 3 (23%) the participants without disabilities talked to Ben about the activity in which they were engaged (Table 3). The talk was noted as playful conversation by the researcher. The participants also praised (i.e., “Nice catch”) Ben when he made a successful catch during the scoop toss station, in addition, his classmates gave him general or specific feedback (Lesson 1, 0.6%) (i.e., “That was good, but try it again”) on his jumping skills (Table 3). This was interpreted as appropriate behavior because the participant without a disability did not criticize Ben, yet this student encouraged Ben to jump again to improve from the first time. One of Ben’s classmates also jumped with him once and physically held his hand (i.e., hands on) so he would know when to jump (Table 3). Ben had opportunities for interaction with the other students in his classes due to the fact that he often retrieved balls for other group members and during transitions from one station to the next. Although Ben had interactions with his classmates, the majority of the time Ben did not interact with his peers without disabilities (Table 3). In fact, for lesson 1, 2, and 3 no interaction was at 64, 87, and 59 percent of the observed time. This was mainly due to the fact that the physical education teacher would explain
the rules and regulations to the class before the activity started (i.e., thereby reducing the time available for interactions). The physical education teacher may have increased interactive behavior during this time by allowing Ben and his peers to demonstrate the stations. In addition, it seemed as though Ben wanted to be alone at certain times for some activities (field notes). For example, Ben engaged in the hula-hoop station alone, and on the scooters he tended to pull off to the side by himself, he rarely raced with anyone. To hold him more accountable, the physical education teacher could have given Ben other ways of participating at a station so that he was involved with his classmates.

During the third lesson, the physical education teacher took the class outside on the black top. The students engaged in basketball (knockout), four square, and kickball (led by the special education teacher). Ben had more opportunities for interaction with his classmates compared to lessons 1 and 2. Again, he talked (23%) with his classmates, and was praised (i.e., “Nice shot”) (28%) when he made a shot in the basket (Table 3). On a few occasions throughout the basketball activity, Ben’s classmates called out his name (3.2%), usually when it was his turn or when he made a basket. While Ben played four squares there were a few classmates that helped him (i.e., hands-on) with placing the ball directly in the opponent’s square. Ben’s overall interaction behaviors percentages increased by the third lesson and
there was a decrease of no interaction (59%). This could be due to the fact that Ben seemed to enjoy the basketball activity more than the other activities and transition time lessened from the first two lessons. These three lessons were within a structured environment, however, the physical education teacher could have provided more opportunities for Ben to have contacts with his peers that were interactive, meaningful, and focused on common goals. It is evident, based on the high percentages of no interaction across these three lessons, that the teacher could have provided more opportunities for Ben to experience positive interactions with his peers. No data were recorded as inappropriate behaviors with regard to Ben, therefore, these data are not reported in Table 3. Overall, however, Ben’s classmates exhibited appropriate yet generally unidirectional behaviors towards him. This finding suggests that teachers should encourage and find creative ways to foster equal status relationships between and among students with and without disabilities in GPE contexts.
<table>
<thead>
<tr>
<th>Rita’s behaviors</th>
<th>Lesson 1</th>
<th>Lesson 2</th>
<th>Lesson 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seconds (%)</td>
<td>Seconds (%)</td>
<td>Seconds (%)</td>
</tr>
<tr>
<td>Talk</td>
<td>0 ( 0.0%)</td>
<td>120 (19.0%)</td>
<td>180 (32.4%)</td>
</tr>
<tr>
<td>Demonstrate</td>
<td>0 ( 0.0%)</td>
<td>15 ( 1.4%)</td>
<td>0 ( 0.0%)</td>
</tr>
<tr>
<td>Praise</td>
<td>0 ( 0.0%)</td>
<td>40 ( 3.7%)</td>
<td>0 ( 0.0%)</td>
</tr>
<tr>
<td>Feedback</td>
<td>0 ( 0.0%)</td>
<td>10 ( 1.0%)</td>
<td>20 ( 3.6%)</td>
</tr>
<tr>
<td>Hands-on</td>
<td>0 ( 0.0%)</td>
<td>15 ( 1.4%)</td>
<td>0 ( 0.0%)</td>
</tr>
<tr>
<td>Interaction</td>
<td>0 ( 0.0%)</td>
<td>20 ( 1.9%)</td>
<td>90 (16.2%)</td>
</tr>
<tr>
<td>First Name</td>
<td>0 ( 0.0%)</td>
<td>30 ( 2.8%)</td>
<td>0 ( 0.0%)</td>
</tr>
<tr>
<td>No Interaction</td>
<td>450 (100%)</td>
<td>730 (68.0%)</td>
<td>260 (47.0%)</td>
</tr>
</tbody>
</table>

**Inappropriate Behaviors**

|                        |          |          |          |
| Feedback               | 0 ( 0.0%) | 10 ( 1.0%) | 0 ( 0.0%) |
| Total Seconds          | 450 (100%)| 990 (99.2%)| 550 (135.2%)|

<table>
<thead>
<tr>
<th>Ben’s Behaviors</th>
<th>Lesson 1</th>
<th>Lesson 2</th>
<th>Lesson 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seconds (%)</td>
<td>Seconds (%)</td>
<td>Seconds (%)</td>
</tr>
<tr>
<td>Talk</td>
<td>150 (17.0%)</td>
<td>5 ( 0.5%)</td>
<td>285 (23.0%)</td>
</tr>
<tr>
<td>Demonstrate</td>
<td>0 ( 0.0%)</td>
<td>0 ( 0.0%)</td>
<td>0 ( 0.0%)</td>
</tr>
<tr>
<td>Praise</td>
<td>5 ( 0.6%)</td>
<td>5 ( 0.5%)</td>
<td>35 ( 2.8%)</td>
</tr>
<tr>
<td>Feedback</td>
<td>5 ( 0.6%)</td>
<td>0 ( 0.0%)</td>
<td>10 ( 0.8%)</td>
</tr>
<tr>
<td>Hands-on</td>
<td>5 ( 0.6%)</td>
<td>0 ( 0.0%)</td>
<td>45 ( 3.6%)</td>
</tr>
<tr>
<td>Interaction</td>
<td>150 (17.0%)</td>
<td>130 (12.0%)</td>
<td>90 ( 7.1%)</td>
</tr>
<tr>
<td>First Name</td>
<td>0 ( 0.0%)</td>
<td>0 ( 0.0%)</td>
<td>40 ( 3.2%)</td>
</tr>
<tr>
<td>No Interaction</td>
<td>570 (64.0%)</td>
<td>940 (87.0%)</td>
<td>750 (59.0%)</td>
</tr>
<tr>
<td>Total Seconds</td>
<td>885 (99.8%)</td>
<td>1080 (100%)</td>
<td>1255 (99.5%)</td>
</tr>
</tbody>
</table>

Table 3: Descriptive Data of Rita and Ben’s Behaviors Across Lessons.
Themes Emerged from Semi-Structured Interviews

Semi-structured interviews (Feldman, 1975) were conducted at the conclusion of the final non-participant observations for each child with a disability, respectively. The interviews took place during the physical education class. The first participant interviewed was Rita (i.e., child with mental retardation). Her interview was held in the physical education teacher’s office, it lasted approximately 12-minutes. The second participant interviewed was Ben (i.e., with a physical disability). He was interviewed outside on the bleachers near the basketball courts a few feet away from the class. His interview lasted approximately 15-minutes. On that particular day, the boys and girls were separated from each other and engaged in different physical activities.

As presented on the following pages, seven major themes emerged from the semi-structured interviews. These themes were: (1) positive attitudes, (2) friendships, (3) uncomfortable with males in class, (4) peer assistance, (5) favorite class, (6) enjoys regular physical activities, and (7) positive attitudes toward teachers. The main theme that emerged from the interviews was that both participants with disabilities (Rita and Ben) had positive attitudes about being included in a general physical education class. They both discussed how much fun they had in physical education class. A second theme that emerged from the interviews was that Rita and Ben developed friendships in
the class and called these particular classmates, “best friends,” in which the researcher had previously judged to be reflective of a meaningful relationship (field notes). These two findings lend to support to several of the constructs (e.g., friendly, pleasant, focused on common goals, and meaningful) of contact theory. A third common theme was that they (i.e., Rita and Ben) felt uncomfortable with their male classmates in this physical education class. This finding is difficult to explain using contact theory’s structural contact variables. The fourth theme was that both Rita and Ben felt a part of the class due to the assistance they received from others in class whenever they were having difficulties. A fifth theme emerged whereupon Rita and Ben stated that physical education was their favorite class. Based on the favorable responses toward specific physical activities, the sixth theme emerged revealing that they both participated in regular physical activities. A final theme that emerged from the interviews was that overall, Rita and Ben had positive attitudes towards their teachers in the general physical education class.

The follow-up interview questions were derived from Rita and Ben's responses on The Inventory instrument (Table 4). The Inventory scoring scale used was: strongly agreed = 6, moderately agreed = 5, slightly agreed = 4, slightly disagreed = 3, moderately disagreed = 2, and strongly disagreed = 1. The following transcribed interview responses are those in which the
common themes emerged. In general, these themes lend support to contact
theory's structural contact elements to the degree that Rita and Ben did
interact with their peers in structured activities (e.g., volleyball play), these
interactions usually were positive, friendly, and meaningful. However, such
contacts tended to be unidirectional and not characteristic of equal status
relationships.
<table>
<thead>
<tr>
<th>The Inventory Items</th>
<th>Rita</th>
<th>Ben</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Most of the time, I enjoy playing with nondisabled students in general physical education.</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2. Most of my classmates in physical education make me feel like I am a part of the class.</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>3. I do not want to be included with nondisabled classmates in the general physical education class.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>4. My classmates make me feel uncomfortable in the general physical education class.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5. Overall, most of my classmates in my physical education class accept me as part of the class.</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>6. My physical education teacher includes me in most activities with my classmates.</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>7. My physical education teacher’s expectations for me are the same as for other students.</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>8. My physical education teacher does not talk to me.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>9. My physical education teacher seems to know a lot about my disability.</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>10. My physical education teacher makes successful changes to activities in order for me to be included.</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 4: Rita and Ben’s Attitudes Toward Their Peers without Disabilities.
Interview 1 - Rita

Theme - Positive Attitudes

Interviewer: The first statement was that most of the time you enjoy playing with nondisabled students in your physical education class? You circled that you strongly agreed. Why? Tell me more about why you feel this way.

Rita: Because I make friends and I get along with everyone. I have fun. It's fun.

Interviewer: You also responded that you do want to be included with nondisabled peers in physical education class? Why?

Rita: I do .... I do want to be in the class because it's fun and I have one friend that has a disability (pause) .... Ben.

Interviewer: It says that you have been included in general physical education class since you were five years old. Is that true?

Rita: Yes, since I was in kindergarten.

Interviewer: So, have you liked being included for this long? In other words, did you like physical education then?

Rita: Yeah, I always liked my gym classes.
Theme- Friendships

Interviewer: You agreed that your classmates accept you. Overall do you think your classmates accept you?

Rita: Yeah... because some of them are my best friends.

Interviewer: So, you have a best friend in phys. ed. class?

Rita: Yes, the girl I like is (stuttering)...Tammy (pseudonym).

Theme- Uncomfortable With the Males in Class

Interviewer: You strongly agreed that your classmates make you feel uncomfortable. Tell me why.

Rita: Yes, I feel comfortable.

Interviewer: So, you do feel comfortable?

Rita: Sometimes the boys make me feel uncomfortable (laughing).

Interviewer: Why?

Rita: Because they can be real... (stuttering) rough sometimes.

Interviewer: Overall, do you feel comfortable in class?
Rita: Yeah.

**Theme- Peer Assistance**

Interviewer: *Ummm... you strongly agreed that most of the classmates make you feel a part of the class? How do they do that?*

Rita: *Because they help me with what's right and what's wrong.*

Interviewer: *Oh, they do... So, let's say you're hitting the volleyball incorrectly, someone will come and help you?*

Rita: *No, if I am like having a hard time, or having trouble thinking, they help me do my work... in gym.*

**Theme- Favorite Class**

Interviewer: *So, people help you in phys. ed. class? Do they help you outside of class?*

Rita: *Yeah, in reading. My favorite classes are gym and reading.*

Interviewer: *So, gym and reading are your favorite classes?*

Rita: *Yeah.*

Interviewer: *Why do you like about gym so much?*

Rita: *Because we play fun games and my friends are there. I like volleyball.*
Theme- Enjoys Regular Physical Activities

Interviewer: So you said that phys. ed. is one of your favorite classes? What physical activities do you like that you do?

Rita: I like to sing, and my favorite thing about gym is playing soccer and basketball?

Interviewer: Why?

Rita: Because one time in fifth grade I scored six or seven points.

Interviewer: What else do you like?

Rita: I like running, volleyball, line soccer, parachute (pause)... dancing, kickball... basketball, jump rope, relays, acrosport and...(pause) stuff.

Interviewer: What do you do after school?

Rita: I am a cheerleader and I love ballet.

Theme- Positive Attitudes Toward Teachers

Interviewer: You agreed that the teacher includes you in most of the activities. How does the teacher do that?

Rita: Yes, I can play everything everyone else plays. My teacher includes me.
Interviewer: You also agreed that that your teacher expects the same from you as everybody else. Do you think everything is the same, does she treat you the same?

Rita: Yes, but I can do some things better than them. I can do it better than some of the girls.

Interviewer: You responded that your teacher likes to talk to you. Is that right?

Rita: Yes, she does!

Interviewer: You agreed that she knows a lot about your disability?

Rita: Yes, she knows my parents.

Interviewer: You agreed that she changes the game for you. How does she do that?

Rita: Yeah... She tries to make an activity that you like.
Interview 2- Ben

Theme- Positive Attitudes

Interviewer: The first statement was that most of the time you enjoy playing with nondisabled students in your physical education class? You circled that you strongly agreed. Why? Tell me more about why you feel this way.

Ben: Because they are happy when they play with me.

Interviewer: You also responded that you do want to be included with nondisabled peers in physical education class? Why?

Ben: I do .... I do because it is fun. I have fun when I am in class with everyone else.

Interviewer: It says that you have been included in general physical education class since you were five years old. Is that true?

Ben: Yeah.

Interviewer: So, have you liked being included for this long?

Ben: Yeah. Most of my friends are here.

Theme- Friendships

Interviewer: You agreed that your classmates accept you. Overall do you think your classmates accept you?
Ben: Yeah... because they don’t leave me out.

Interviewer: So, you have a friend in phys. ed. class?

Ben: Yes, my best friends are Tommy, Danny, and Timmy (pseudonyms). I play after school with them.

Theme- Uncomfortable With the Males in Class

Interviewer: You strongly disagreed that your classmates make you feel uncomfortable. Tell me why.

Ben: Yes, I feel comfortable.

Interviewer: You do feel comfortable?

Ben: Sometimes the boys make me fall.

Interviewer: Why?

Ben: I don’t know. But, the boys play with more than the girls.

Interviewer: Do the girls play you attention in class?

Ben: Yeah, some do and some don’t.

Interviewer: Overall, do you feel comfortable with the girls or boys?

Ben: The girls, when they play with me.
Theme- Peer Assistance

Interviewer: *Ummm, you strongly agreed that most of the classmates make you feel a part of the class? How do they do that?*

Ben: *Yes!*

Interviewer: *How do they do that?*

Ben: *They help me sometimes. Like when I am jumping rope or like…. other stuff. I have fun.*

Theme- Favorite Class

Interviewer: *What is your favorite class?*

Ben: *Gym.*

Interviewer: *Why is phys. ed your favorite class?*

Ben: *Because we play fun stuff, like basketball and football.*
Theme- Participates in Regular Physical Activities

Interviewer: So you said that phys. ed. is one of your favorite classes? What physical activities do you like that you do?

Ben: I like to dance.

Interviewer: Why?

Ben: I just do. We dance in class sometimes.

Interviewer: What else do you like?

Ben: I like basketball, flag football, dance, kickball, jump rope. And horseback riding after school.

Theme- Positive Attitudes Toward Teachers

Interviewer: You agreed that the teacher includes you in most of the activities. How does the teacher do that?

Ben: I can play football with everyone. I am going to join a basketball team.

Interviewer: You also agreed that your teacher expects the same from you as everybody else. Does he treat you the same?

Ben: Yeah, he's funny.
Interviewer: You responded that your teacher likes to talk to you. Is that right?

Ben: Yeah, we talk about fun stuff like water guns and football.

Interviewer: You agreed that he knows a lot about your disability?

Ben: Yes, he knows my brother. He knows about me and my family.

Interviewer: You agreed that he changes the game for you. What does he do?

Ben: Yeah... we play things that I like. Like flag football.

Summary of Results

The results of the attitudinal surveys, CAIPE-R and The Inventory, revealed that students with and without disabilities in this physical education class had positive attitudes towards one another and this was reflected in their behaviors. In addition, the results lend some support to several of the structural contact variables of contact theory (Sherrill et al., 1994; Slininger et al., 2000). That is, on occasion the physical education teacher for this class provided lesson structure that allowed both students with and without disabilities to be interactive and these interactions usually were friendly, appropriate, and deemed meaningful. On the other hand for the majority of the observed time for both participants with disabilities, there was no
interaction with their peers without disabilities due to the lack of activity structures and other conditions in the classroom (e.g., lack of teacher effectiveness relative to game modifications and high transition times).

To continue, several themes emerged from student interviews suggesting that Rita and Ben had developed meaningful relationships within this GPE program. Moreover, both Rita and Ben expressed positive attitudes during their interviews. They discussed how they had developed friendships in the class, their participation in regular physical activities, and the peer assistance they received from their peers without disabilities. In general, findings within this study indicate that the participants with and without disabilities felt positive about being in an inclusive general physical education setting together.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter provides a summary of the current research study and offers conclusions and recommendations for future research. The chapter contains three sections: (1) Summary, (2) Conclusions, and (3) Recommendations.

Summary

The purpose of the study was to examine the attitudes and behaviors of 6th grade students with and without disabilities, from a rural middle school in a Midwestern town, relative to them being educated in an inclusionary general physical education program. The class was observed over the course of two weeks. This particular program was observed due to the fact that it was an inclusive middle school general physical education program that contained students without disabilities, a girl who had Down syndrome concurrent with mild mental retardation, and a boy with a physical disability. In this study contact theory's structural contact variables (Allport, 1954; Amir, 1969; Sherrill et al., 1994) were used to better understand and explain the attitudes
and behaviors of students with and without disabilities relative to the following research questions:

1. What are the attitudes of students without disabilities towards their peers with disabilities in an inclusive physical education setting?

2. What are the behaviors of students in inclusive physical education classes?

3. What are the attitudes of students with disabilities towards their peers without disabilities in an inclusive physical education setting?

The summary is presented in accord with the research questions.

Research Question #1: What are the attitudes of students without disabilities towards peers with disabilities in an inclusive physical education setting?

In relation to the current study, the two participants with disabilities had been included in general physical education since pre-school within the community, which may have contributed to the students without disabilities having expressed positive attitudes toward them, (i.e., due to prior contacts). The data (mean attitude scores) revealed, based on the CAIPE-R responses, that the students without disabilities overall had similar favorable attitudes toward their peer with mental retardation and a peer with a physical disability. According to Voeltz (1980), children without disabilities who have
had previous exposure and contact with peers with disabilities had more favorable attitudes toward their peers without disabilities than those who have not had such experiences.

*Research Question #2: What are the behaviors of student in inclusive physical education classes?*

The observational data of the specific behaviors of the participants without disabilities revealed that the students with and without disabilities had mostly positive and some negative interactions. Although limited in occurrence opportunities for contacts were structured; interactive, meaningful, and pleasant. Importantly, such conditions of contacts would tend to impact attitudes favorably according to contact theory's structural contact variables (Amir, 1969; Sherrill et al., 1994; Slininger et al., 2000). When either of the participants with disabilities did interact by talking, demonstrating, receiving appropriate feedback and other interactive behaviors, most of these interactions were appropriate and pleasant. Inappropriate behavior was documented only once during the observational period relative to Rita and her peer without disability. However, there were also high percentages of no interaction among the students, which might be due to a number of confounding variables, such as a lack of teacher effectiveness, high transition times, and at times limited interest in the planned activities on behalf of Rita or Ben. Research suggests that contact between individuals considered
“different” makes little difference in overall attitudes and behaviors unless the contacts are recurrent, interactive, enjoyable, focused on common goals, significant, and equally respectful (Sherrill et al., 1994; Slininger et al., 2000).

**Research Question #3:** What are the attitudes of students with disabilities towards their peers without disabilities in an inclusive physical education setting?

Seven themes emerged from the semi-structured interview follow-up questions derived from Rita and Ben’s responses to statements on the Inventory (Webb, 2000b) instrument. These themes were: (1) overall positive attitudes toward an inclusive physical education class, (2) friendships, (3) uncomfortable with males in class, (4) peer assistance, (5) favorite class (6) participated in regular physical activities, and (7) positive attitudes toward teachers. These themes support the structural contact constructs of contact theory (Sherrill et al., 1994) and Murata’s et al., (in-press) conclusions that favorable conditions can lead to meaningful physical education experiences and growth in friendships. However, it is important to note that the interview follow-up questions were based solely on Rita and Ben’s responses to the Inventory items and not to specific behaviors observed by the researcher.

Empirical evidence suggest that favorable conditions help foster positive attitudes when there is equal status, when the social environment encourages
contact, when the contact is pleasant or rewarding, interactive experiences are encouraged, and when contact is friendly, cooperative, and focuses on common goals (Amir, 1969; Sherrill, et al., 1994; Slininger et al., 2000). The themes from the student interviews illuminate such favorable conditions.

Conclusions

The results of the study indicate that the participants with and without disabilities had positive attitudes towards one another, however, there were high percentages of no interaction. When interactions did occur, they were mostly pleasant, meaningful, and focused on common goals. Both participants with disabilities exhibited appropriate behaviors during structured physical activities, however, the study does not conclude that these structured activities are the primary reason for the participants’ positive attitudes. First, such positive attitudes may be a result of prior contact and familiarity of the students with each other. Secondly, the researcher only examined the attitudes and behaviors based on observations, the use of the CAIPE-R (Block, 1995) attitudinal instrument, and common themes derived from responses to The Inventory (Webb, 2000b) instrument. The researcher did not examine the attitudes and behaviors of participants as a function of gender, ethnicity, social economic status and other demographic variables. Nor did the researcher thoroughly investigate the prior contacts with individuals with disabilities that the participants may have experienced.
The observational data (i.e., AIPE instrument) revealed how the students interacted with each other, however, it is important to note that the physical activities could change and may have had an adverse effect on the positive behaviors that were exhibited during the study. Although there were large percentages of no interaction for both participants with disabilities, the interactions that did occur were positive and appropriate. In regard to the common themes, an interesting finding was that both participants with disabilities felt uncomfortable around the males without disabilities in the class, but still felt comfortable overall in these physical education classes with their peers. In addition, themes that emerged (i.e., overall positive attitudes toward an inclusive physical education setting, peer assistance, and friendships) relate to favorable conditions that can lead to meaningful physical education experiences (Murata et al., in press).

The study did provide insight to the research questions and lend support to inclusive physical education programs. Furthermore, findings in this study suggest that contact theory’s structural contact variables do help explain how positive attitudes and behaviors may develop or fail to develop in an inclusive general physical education setting. In addition, it is also important to note that direct contact does not always create positive attitudes, which can be attributed to poor planning and/or inadequately structured environments.
(Donaldson, 1980; Sherrill et al., 1994; Slininger et al., 2000). This may have occurred in the current study.

**Recommendations for Practice**

The following recommendations for practice are in relation to the findings of the study. Clearly physical education teachers: (1) should provide modifications activities whenever necessary and find creative ways for students with and without disabilities to interact in appropriate and meaningful ways on a frequent basis; (2) should involve all students in activities that are of interest to them and provide opportunities for successful participation; (3) ought to investigate and become familiar with the abilities and limitations of all their students both with and without disabilities; and (4) need to hold their students accountable for their actions in the physical education setting.

According to Heikanaro-Johansson and Sherrill (1994), teachers need to be conscious of students’ individual needs. High-quality instruction most likely will not occur when there is no understanding of disability types and the many ways to modify instruction and/or activities. In many cases, health impairments are so mild that students can take part in general physical education. However, teachers have to be aware of students’ backgrounds so that they can appropriately modify instruction. Inquiring teachers about their needs and beliefs is one way to get them to think about their responsibilities
and ethics. To that end, the focus should be teachers' positive attitudes when implementing integration (Heikinrno-Johansson & Sherrill, 1994).

**Recommendations for Future Research**

As a result of the findings from this study, the following are recommendations for future research studies: (1) More studies need to be conducted about students with disabilities and their attitudes and behaviors who are educated in inclusive general physical education settings; (2) More studies need to address the differences between the attitudes and behaviors of student with and without disabilities who are in a general physical education class with support services; (3) A study that discusses in depth the effects of gender on the attitudes and behaviors of students without disabilities toward students with disabilities; (4) Longitudinal studies need to be conducted to follow students with disabilities from their elementary years through high school years and examine the differences in attitudes and behaviors of students without disabilities toward students with disabilities; (5) A study needs to be conducted to examine the impact of ethnicity on the attitudes and behaviors of students with and without disabilities toward one another; (6) Conduct additional studies that use varied components of contact theory relative to the attitudes and behaviors of students with and without disabilities in general physical education settings; (7) Conduct more studies that examine different theoretical frameworks and their relation to the attitudes and
behaviors of students with disabilities towards a general physical education program; and (8) Conduct research that examines attitudes and behaviors of students with various disabilities (e.g., deaf/blind, hearing impaired, learning disabilities) in inclusive physical education settings.
REFERENCES


Bagley, M. & Green, J. (1981). Peer attitudes toward the handicapped scale. Austin, TX: PRO-ED.


Dodds, P. (1986). Stamp out the ugly isms in your gym. In M. Pieron & G. Graham (Eds.), Sport Pedagogy, 141-150.


APPENDIX A

OSU Human Subjects Review Approval Sheet
Research Involving Human Subjects

ACTION OF THE INSTITUTIONAL REVIEW BOARD

With regard to the employment of human subjects in the proposed research protocol:

00B0050  INCLUSION: ATTITUDES AND BEHAVIORS OF STUDENTS WITH AND WITHOUT DISABILITIES TOWARDS AN INCLUSIONARY PHYSICAL EDUCATION PROGRAM, Samuel R. Hodge, Rhea S. Butler, Physical Activity & Educational Services

THE BEHAVIORAL AND SOCIAL SCIENCES HUMAN SUBJECTS IRB HAS TAKEN THE FOLLOWING ACTION:

____ APPROVED   ______ DISAPPROVED

X  APPROVED WITH CONDITIONS*  ______ WAIVER OF WRITTEN CONSENT GRANTED

* Conditions stated by the IRB have been met by the Investigator and, therefore, the protocol is APPROVED.

It is the responsibility of the principal investigator to retain a copy of each signed consent form for at least three (3) years beyond the termination of the subject's participation in the proposed activity. Should the principal investigator leave the University, signed consent forms are to be transferred to the Human Subjects IRB for the required retention period. This application has been approved for the period of one year. You are reminded that you must promptly report any problems to the IRB, and that no procedural changes may be made without prior review and approval. You are also reminded that the identity of the research participants must be kept confidential.

Date: April 14, 2000
Signed: [Signature]
(Chairperson)
APPENDIX B

Parent Letter
Dear Parents,

May 16, 2000

My name is Rhea S. Butler. I am a graduate student in the School of Physical Activity and Educational Services, focusing on Adapted Physical Education at The Ohio State University. I am completing a thesis as a requirement for my Master's program.

I plan to examine the attitudes and behaviors of students with and without disabilities who are taught in an inclusive physical education program. A total of eight students with and without disabilities from rural middle schools in Ohio are to be selected. I will collect data on this issue in three ways: A survey, observations of students in class, and a brief interview of each student. The students will first circle answers to survey questions concerning their attitudes toward their physical education class. The students will then be observed at least two to three times in their physical education classes for approximately 25-30 minutes. The researcher will record their behaviors. A brief follow-up interview in relationship to their responses will be the final part of my research study.

The data that are collected and recorded during the study will be maintained in secured files that are only accessible to the principal investigator, Dr. Samuel R. Hodge and myself. Pseudonyms will be assigned to each of the students to insure confidentiality. All data collected will be destroyed when the study has been completed.

I am asking for your consent in allowing your son/daughter to be involved in the study. The parent(s) and child must both sign the consent form if your child is over 14 years of age. A consent form is attached. I would appreciate your consideration and a timely response to this letter.

Sincerely,

Dr. Samuel R. Hodge
Principal Investigator

Rhea S. Butler Principal
Co-Investigator

If you have any questions, please contact Dr. Hodge at The Ohio State University,
School of Physical Activity and Educational Studies, 215 Pomerene Hall,
1760 Neil Avenue Columbus, Ohio 43210-1297 (614) 292-8264

Sections
Sport & Exercise Sciences 292-2504
Wellness & Human Services 292-8183
Workforce Education & Lifelong Learning 292-5037
College of Education

98
APPENDIX C

Participant Consent Form
CONSENT FOR PARTICIPATION IN SOCIAL AND BEHAVIORAL RESEARCH

I consent to my child's participation in the research entitled:

Inclusive Physical Education: Attitudes and Behaviors and Students

---------------------------------------------

Dr. Samuel R. Hodge or his/her authorized representative has...

(Principal Investigator)

Explain the purpose of the study, the procedures to be followed, and the expected duration of my child's participation. Possible benefits of the study have been described, as have alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to my full satisfaction. Furthermore, I understand that my child is free to withdraw consent at any time and to discontinue participation in the study without prejudice to my child.

Finally, I acknowledge that I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Date: ___________________________ Signed: ___________________________

(Principal Investigator or his/her authorized representative)

Signed: ___________________________ Signed: ___________________________

(Person authorized to consent for participant - if required)

Witness: ___________________________ Sections

Special Education: 292-6143 292-2564 292-6183
General Studies: 292-2561 292-6157
College of Education

100
APPENDIX D

Children's Attitudes Toward Integrated PE
CHILDREN'S ATTITUDES TOWARDS INTEGRATED PHYSICAL EDUCATION

Revised CAIPE-R (Block, 1994)
(Child with Physical Disability/Mental Retardation)

Rhea S. Butler
The Ohio State University

General Directions:

These are series of statements that measure attitudes toward an integrated physical education class. There are no right or wrong responses. Circle the response that best describes your thoughts/feelings about each statement.

DO NOT SKIP ANY QUESTIONS.
CIRCLE ONLY ONE RESPONSE PER QUESTION.
ALL RESPONSES WILL BE KEPT CONFIDENTIAL.
CHILDREN'S ATTITUDES TOWARDS INTEGRATED PHYSICAL EDUCATION
Revised (CAIPE-R) (Block, 1994)
(Child with Mental Retardation / Physical Disability)

Monitor Instructions:
I need some information from you which will take about 15 minutes to do.

First of all look at your answer sheet. Look where it says “student’s name” and write your first and last name in the blank (Wait a moment to be sure that this is done).

Now circle whether you are a boy or girl (pause).

Now write your age — you probably ______ years-old, right (pause)?

Now write your grade — you all should be ___ graders, right (pause)?

Now circle whether or not a person in your family or a very close friend of yours has a disability — you know, someone like your brother or cousin or someone who lives near you who has a Physical Disability or someone who has Physical Disability (pause).

Now circle whether or not you ever had a person in one of your regular classes who had a disability — you know, someone who came from a special ed. class, someone who has physical disabilities or someone who has Physical Disability (pause).

Now circle whether or not you ever had a person in one of your physical education classes who had a disability (pause).

Finally, circle whether you consider yourself to be:

very competitive (I mean, do you always want to win and do you get upset if you lose),
kind of competitive (you like to win an play hard, but winning or losing is not the end of the world),
not competitive (you just like to play and have fun).

Ok, now you can turn to the next page of your answer sheet. I am going to ask you to listen to some questions, and I want you to tell me what you think of them. These questions are about a boy named Ripton who might come to your physical education class. You can see a list of numbers on your paper with yes, probably yes, probably no, and no. For each number, I will read you a sentence out loud. Some of you will agree with the sentence, you should circle yes if you agree. Some of you will not agree with the sentence, you should circle no if you do not agree. If you think you agree but you are not sure, then circle probably yes. If you think you disagree but you are not sure, then circle probably no.

There are really no “right” or “wrong” answers to any of these sentences; it all depends on how you feel about what I say. Let me give you an example. Suppose the sentence I read to you is: “Basketball is my favorite sport.” If this is true for you because your favorite sport is basketball, then you should circle yes. If your favorite sport is baseball or some other sport, you disagree and should circle no. If you think that basketball is your favorite sport but you are not sure (maybe you like another sport too), then circle probably yes. If you think that basketball is not your favorite sport but you are not sure (you really like baseball, but you kind of like basketball too), then circle probably no.
CAIPE-R Scale (Child with Mental Retardation / Physical Disability) page 2

Remember, the answer to each question depends on you, and your answers will probably be different from other kids’ answers. When you are all done, you’ll probably have some yeses, some probably yeses, some noes, and some probably noes, or answers could be one thing. Does anyone have any questions (look around and wait for questions)?

Ok, let’s get started, but first let me tell you something about Rita/Ben. Rita/Ben are the same age as you are. However, she/he has Mental Retardation / Physical Disability, so she/he doesn’t learn as quickly as you can. Because of his/her Physical Disability she/he also doesn’t talk very well, so sometimes it is hard to understand what she/he is saying. Rita/Ben likes playing the same games you do, but she/he does not do very well in the games. Even though she/he can run, she/he is slower than you and tires easily. She/he can throw and catch and hit a softball, but not very well. She/he likes soccer, but she/he cannot kick a ball very far. She/he also likes basketball, but she/he is not very good at shooting or dribbling, and she/he doesn’t really know she/he rules of the game. When you listen to the sentences, think about Rita/Ben.

Ok, find a number 1 on your answer sheet and I’ll read you the first sentence. (Begin. Read each number and sentence one at a time, and wait until everyone has circled an “answer” before you go on to the next item. Check visually every few sentences to be sure that all numbers have a response circled. Be sure to repeat all instructions as indicated on the list of sentences. Always pause after you read a sentence, and read the instruction just below you read the next sentence.

1. I live in Virginia.
2. We usually have lunch at 12:00 o’clock in the morning.
   (Now, think about Rita/Ben and remember. Circle yes if you agree with the sentence, probably yes if you think you agree but you are not sure, probably no if you think you disagree but you are not sure, and no if you disagree).
3. It would be OK having Rita/Ben come to my class P.E.
4. Because Rita/Ben cannot play sports very well, she/he would slow down the game for everyone.
5. If we were playing a team sport such as basketball, it would be OK having Rita/Ben on my team.
6. P.E. would be fun if Rita/Ben was in my P.E. class.
   (Don’t forget to think about Rita/Ben. You should mark how you feel. Yes if you agree, probably yes if you think you agree but are not sure, probably no if you think you disagree but are not sure, and no if you disagree).
7. If Rita/Ben were in my P.E. class, I would talk to him/her and be his/her friend.
8. If Rita/Ben were in my P.E. class, I would like to help him/her practice and play the games.
   (Don’t forget to think about Rita/Ben. Remember, circle yes if you agree with the sentence, probably yes if you think you agree but are not sure, probably no if you think you disagree but are
not sure, and no if you disagree.

CAIPE-R Scale (Child with Mental Retardation / Physical Disability)
page 3

9.13 Which rule changes to softball during P.E. do you think would be O.K. if a kid like Rita/Ben were playing? Remember circle yes if you agree, probably yes if you think you agree but are not sure, probably no if you think you disagree but you are not sure, and no if you disagree.

9. Rita/Ben could hit a ball placed on a batting tee?

10. Someone could tell Rita/Ben where to run when she/he hits the ball?

11. The distance between home and first base could be shorter for Rita/Ben?

(Don't forget to think about Rita/Ben. You should mark how you feel. Yes if you agree, probably yes if you think you agree but are not sure, probably no if you think you disagree but are not sure, and no if you disagree.

12. Someone could help Rita/Ben when she/he plays in the field.

13. If the ball was hit to Rita/Ben, the batter could only run as far as second base.

You are finished! Thank you for filling this out for us. Please give your answer sheet to your teacher.
Answer Sheet

School: __________________________ Date: __________________________
Teacher: __________________________ Student's Name: __________________________
Your Age: __________________________ Your Grade: __________________________

Circle one:

BOY  GIRL

Circle one:

YES, someone in my family or a close friend of mine has a disability

NO, I do not have any family members or friend have a disability

Circle one:

YES, I had someone in one of my regular classes who had a disability

NO, I never someone in my regular classes who had a disability

Circle one:

YES, I had someone in one of my P.E. classes who had a disability who had a disability

NO, I never had someone in my P.E. classes

Circle one:

VERY COMPETITIVE (I like to win, and I get very upset if I lose)

KIND OF COMPETITIVE (I like to win, but it is OK if I lose sometimes)

NOT COMPETITIVE (It really doesn't matter if I win or lose, I just play for fun)

-PLEASE TURN TO THE NEXT PAGE-
NOW LISTEN TO TSHL/BE MONITOR AND CIRCLE YOUR ANSWER

1. YES  PROBABLY YES  PROBABLY NO  NO
2. YES  PROBABLY YES  PROBABLY NO  NO
3. YES  PROBABLY YES  PROBABLY NO  NO

4. YES  PROBABLY YES  PROBABLY NO  NO
5. YES  PROBABLY YES  PROBABLY NO  NO
6. YES  PROBABLY YES  PROBABLY NO  NO
7. YES  PROBABLY YES  PROBABLY NO  NO

8. YES  PROBABLY YES  PROBABLY NO  NO
9. YES  PROBABLY YES  PROBABLY NO  NO
10. YES  PROBABLY YES  PROBABLY NO  NO
11. YES  PROBABLY YES  PROBABLY NO  NO

12. YES  PROBABLY YES  PROBABLY NO  NO
13. YES  PROBABLY YES  PROBABLY NO  NO

THANK YOU! YOU ARE FINISHED!
APPENDIX E

Analysis of Inclusion Practices in GPE
ANALYSIS OF INCLUSION PRACTICES IN PHYSICAL EDUCATION

[FORM S – STUDENTS VERSION]

(Hodge et al., 2000)

This instrument is designed to measure occurrence and duration of specific behaviors during physical, instructional, and social inclusion practices.

For purposes of this study:

Physical inclusion refers to those physical education programs identified as having students with and without disabilities assigned to the same regular physical education classes (Sherill, 1998).

Instructional inclusion refers to the extent of involvement among and between students with and without disabilities in learning activities within regular classes (Sherill, 1998).

Social inclusion refers to the nature and occurrence of personal interactions among and between peers with and without disabilities who are classmates (Sherill, 1998).

Extent of involvement and interactions are measured by the occurrence and/or duration of time the teacher and/or students with and without disabilities engage in instructional or social activities together (e.g., teacher talks to student, peer partners interact cooperatively, peers share equipment).

Directions for scoring: The procedure for recording duration per occurrence using a stopwatch. Activate the stopwatch as the target behavior starts and stop the timing at the end of the episode. The researcher/observer transfers the duration of time showing on the stopwatch to the attached data sheet (Duration Per Occurrence of Interactions Data Sheet) and resets the watch. The stopwatch is started again at the beginning of the second occurrence of the behavior and is stopped at the end of the episode. The duration of time is transferred to the data sheet, and the procedure is continued until the end of the observation session (adapted from Cooper, Heron, & Heward, 1987).
OCCURRENCE OF SPECIFIC STUDENT INITIATED BEHAVIORS

Scoring: each behavior emitted during a 5-second time interval is coded using the appropriate behavioral category label. For example, if a student without disability provides feedback (at any time within the time interval observed) to a peer with disability, the FB (feedback) is written in the interval square. In contrast, if the student unjustly criticizes her or his peer with a disability, the FB is written and circled in the time interval square. Coding strategy for time intervals: 5-seconds to observe behaviors followed by 5-seconds to record label; this pattern is repeated continuously.

Key Behaviors:
T = Initiate talk and/or verbal interaction with peer with disability
D = Model or demonstrate for peer with disability and/or asks peer with disability to model or demonstrate for her/him.
P = Praise peer with disability for effort and/or achievement
FN = Use peer's (with disability) first name.
FB = Give general positive and/or specific appropriate feedback to peer with disability.
H = Physical contact (e.g., ask for "hands-on" help and/or give "hands-on" help to peer with disability)
I = Interactions (i.e., interactions between students with and without disability not identified above).
N = No interactions between students with and without disabilities.
OCCURRENCE OF SPECIFIC STUDENT INITIATED BEHAVIORS

DEMOGRAPHIC DATA SHEET

Teacher ___________________ School ___________________
Grade ___________________ Date ___________________
Activity ___________________ Start ___________ Stop ___________
Observer ___________________

Description of Students with Disabilities (type/severity)

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---------------------------------------------------------------

General Comments (consider - lesson objective(s), critical incidents)

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Summary of Data: Appropriate Student Behaviors

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Summary of Data: Inappropriate Student Behaviors

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Summary of Data: No Interaction between Student with and without Disability

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Target student's name ___________________

Specific comments

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APPENDIX F

The Inventory
*An Attitudinal Analysis of Students with Physical Disabilities Toward General Physical Education

The Ohio State University
(Daniel Webb, 2000)

General Directions:

These are a series of statements that measure attitudes toward general physical education class. There are no right or wrong responses. Circle the response that best describes your thoughts/feelings about each statement.

DO NOT SKIP ANY QUESTIONS.

CIRCLE ONLY ONE RESPONSE PER QUESTION.

ALL RESPONSES WILL BE KEPT CONFIDENTIAL.
This survey contains three sections as it relates to physical education and your attitude towards (peers, activities, and teacher). Please circle the response which best corresponds to your agreement with each statement.

**KEY**
SD = strongly disagree
MD = moderately disagree
SLD = slightly disagree
SLA = slightly agree
MA = moderately agree
SA = strongly agree

**I. Attitude of individual with a disability towards other students in general physical education.**

1. Most of the time, I enjoy playing with nondisabled students in my physical education class.

   SD  MD  SLD  SLA  MA  SA

2. Most of my classmates in physical education make me feel like I am a part of the class.

   SD  MD  SLD  SLA  MA  SA

PLEASE CONTINUE ON NEXT PAGE
Response Key: SD = Strongly Disagree; MD = Moderately Disagree; SLD = Slightly Disagree; SLA = Slightly Agree; MA = Moderately Agree; SA = Strongly Agree

3. I do not want to be included with nondisabled classmates in the general physical education class.

   SD       MD       SLD       SLA       MA       SA

4. My classmates make me feel uncomfortable in the general physical education class.

   SD       MD       SLD       SLA       MA       SA

5. Overall, most of my classmates in my physical education class accept me as part of the class.

   SD       MD       SLD       SLA       MA       SA

PLEASE CONTINUE ON NEXT PAGE

5. Were you born with your disability? 1) Yes 2) No
Response Key: SD = Strongly Disagree; MD = Moderately Disagree; SLD = Slightly Disagree; SLA = Slightly Agree; MA = Moderately Agree; SA = Strongly Agree

II. The attitude of individuals with a disability towards the teacher in general physical education class.

1. My physical education teacher includes me in most activities with my classmates:
   SD  MD  SLD  SLA  MA  SA

2. My physical education teacher’s expectations for me are the same as for the other students.
   SD  MD  SLD  SLA  MA  SA

3. My physical education teacher does not talk to me.
   SD  MD  SLD  SLA  MA  SA

4. My physical education teacher seems to know a lot about my disability.
   SD  MD  SLD  SLA  MA  SA

5. My physical education teacher makes successful changes to activities in order for me to be included.
   SD  MD  SLD  SLA  MA  SA

PLEASE CONTINUE ON NEXT PAGE
III. Demographic Information:

1. What is your gender?  
   1) Male  
   2) Female 

2. What grade level are you? ________

3. With which ethnic group are you identified?
   1) African-American  
   2) Asian-American  
   3) White-American  
   3) Hispanic-American  
   4) Native-American  
   5) Other: Please specify ________

4. What is your age? Please specify ________

5. Were you born with your disability?  
   1) Yes  
   2) No 

6. If you responded “No” to question #5, how old were you when you became disabled? ________

7. How long have you been playing in your physical education class with students without disabilities? Please indicate:
   1) ______ Days  
   2) ______ Months  
   3) ______ Years

8. Do you participate in regular physical activities?  
   1) Yes  
   2) No

9. If you responded “Yes” to question #8, what physical activities do you participate in, and how often? ________

THANK YOU, YOU ARE FINISHED. PLEASE PLACE YOUR SURVEY IN THE ENVELOPE PROVIDED BY YOUR TEACHER.