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UMI
INCLUSION PRACTICES OF SECONDARY PHYSICAL EDUCATION TEACHERS

DISSERTATION

Presented in Partial Fulfillment of the Requirement for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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2001

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ABSTRACT

The philosophy of inclusion means different things to different people. The number of students identified with disabilities receiving services, under Public Law 105-17, Individuals with Disabilities Education Act (IDEA) Amendments of 1997 and Chapter 1 of the Elementary and Secondary Education Act, increased by 23% from the period 1976-1977 to 1989-1990 (U.S. Department of Education, 1992). To better understand how to best serve students with disabilities there is a growing need for research pertaining to the efficacy of inclusion. Clearly, a need exists to investigate physical educators' general understanding of the inclusion paradigm, and more important their behaviors relative to teaching students with varying abilities and disabilities in general physical education (Heikinaro-Johansson & Vogler, 1996; Lavay & DePaepe, 1987).

The purpose of this research was to study two general physical education teachers at the secondary level and determine their views and practices relative to inclusion practice. Moreover, this study sought to describe the class behaviors of physical education teachers toward students with disabilities in inclusive physical education classes.
Data were collected from 18 lessons using systematic observations, interviews, stimulated recall sessions and journal record. Descriptive statistics and thematic narratives were used to present results.

Results indicated that the teachers expressed positive views about including students with disabilities in general physical education classes. However both teachers were of the perspective view that for some particularly those students with severe disabilities inclusion may not be possible. The teachers felt ill prepared to handle situations that occurred within inclusive physical education classes. On the whole, the most frequent teacher behavior exhibited by the teachers toward students with disabilities was verbal communication.
Dedicated to my wife, Nancy; to my children, Davida, Phillippa, and Nathan; to my sisters, Patience and Beatrice; and to my mother, Christiana.
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PUBLICATIONS


FIELD OF STUDY

Major Field: Education
TABLE OF CONTENTS

Abstract ...................................................................................................................... ii
Dedication .................................................................................................................... iv
Acknowledgments ......................................................................................................... v
Vita................................................................................................................................ vii
List of Tables.................................................................................................................. x

Chapters:

1. Introduction........................................................................................................ 1
   1.1 Purpose of Study.................................................................... 6
   1.2 Research Questions............................................................ 6
   1.3 Limitations / delimitations of the study...................................... 6
   1.4 Definitions of Terms................................................................. 7

2. Review of Literature.......................................................................................... 11
   2.1 Theoretical Perspectives of Inclusion.................................... 11
   2.2 Brief History of Inclusion....................................................... 13
   2.3 Early Studies on Inclusion...................................................... 15
   2.4 Research on Attitudes Toward Teaching Individuals with Disabilities........................................ 18
   2.5 Inclusive Practices of Effective Teachers .............................. 26
   2.6 Model for Inclusion in Secondary Physical Education...........29
   2.7 Summary......................................................................................30

3. Methods and Procedures.................................................................................... 32
   3.1 Setting and Participants........................................................ 32
   3.2 Research Site.................................................................................. 35
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Demographic Information of Classes and Students for Physical Education Teachers</td>
<td>36</td>
</tr>
<tr>
<td>3.2</td>
<td>Summary of Study Methodology</td>
<td>48</td>
</tr>
<tr>
<td>4.1</td>
<td>Frequency Distribution of Tim's Behaviors Across Lessons Toward Juliet and Frank</td>
<td>62</td>
</tr>
<tr>
<td>4.2</td>
<td>Time (Minutes) Distribution of Tim's Behaviors Across Lessons Toward Juliet and Frank</td>
<td>64</td>
</tr>
<tr>
<td>4.3</td>
<td>Frequency Distribution of John's Behaviors Across Lessons Toward Tina and Alice</td>
<td>81</td>
</tr>
<tr>
<td>4.4</td>
<td>Time (Minutes) Distribution of John's Behaviors Across Lessons Toward Tina and Alice</td>
<td>83</td>
</tr>
</tbody>
</table>
The law related to least restrictive environment (LRE) mandate states,

"...to the maximum extent appropriate, children with disabilities, including children in public or private institutions are educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily" (Federal Register, August 23, 1977, 42497).

Across the United States special education program personnel are reanalyzing the least restrictive environment (LRE) mandate contained in Public Law 105-17 (Individuals with Disabilities Education Act [IDEA] Amendments of 1997). Although the need for compliance with relevant federal mandates has long been recognized, some educators including physical educators are now more than ever before, calling for the inclusion of all students with disabilities into general education contexts (Block, 1994, 2000; Brown et al., 1989).

The philosophy of inclusion means different things to different people. Inclusion sometimes is referred to as mainstreaming (Salisbury, 1991). Inclusion also refers to specific service delivery models (Sailor, 1990). Some educators use the terms integration, mainstreaming, and inclusion interchangeably, referring to serving students with and
without disabilities in the same settings on a part-time or full-time basis (Miller, 1996). Most people, however, refer to full or total inclusion of all students with disabilities in general education classrooms (Fuchs & Fuchs, 1994). Inclusion is a value and an underlying philosophy by which all students with and without disabilities are educated together in supportive settings; learning, playing, and working with students their own ages in the same classrooms attended by their brothers, sisters, and neighbors. Regardless of individual needs, students should be provided necessary and appropriately trained and supportive staff, necessary and appropriate related services and supports. These include technical supports as specified in the individualized education program or other educational plans (AXIS Center for Public Awareness, 1993).

Inclusion has been defined as: (a) placing students with disabilities in their home schools (schools they would attend if they did not have a disability); (b) placing these students in age-appropriate, general education classrooms; (c) placing students with disabilities in general education classrooms following the principle of natural proportions (i.e., in general, placing no more than 1-2 students with disabilities in any one general education class); and (d) providing supplementary aids and services in the form of individualized programming, support personnel, special instruction, and adapted materials within the general education setting (Block, 1994; Brown et al., 1991; Forest & Lusthaus, 1989; Lipsky & Gartner, 1991; Rogers, 1993; Sailor, Gee, & Karasoff, 1993; Snell, 1991; Stainback & Stainback, 1990). More recently, DePauw and Doll-Tepper (2000) stated, "inclusion should be considered a philosophical approach to implementing social justice in our schools and our society so that all persons are valued as unique contributing members of society and included" (p.139).
In terms of physical education, inclusion is adapted physical education provided within the general physical education (GPE) setting (Block, 1994). Inclusion is a philosophical paradigm that advocates the placement of all students with varied abilities and disabilities (mild to severe) into general education classes with peers in their neighborhood schools (Block, 1994, 2000; Murata, Hodge, & Little, 2000). The idea of a student "identified" as disabled (e.g., mentally retarded) and; therefore, automatically placed in a segregated context is no longer an acceptable practice for exclusion from general education (Murata et al., 2000). Moreover, physical educators must be receptive to providing students with disabilities opportunities to participate in GPE classes first and foremost, as opposed to automatic placement in separate "special" classes (Murata et al., 2000).

Block (1994) stated that all students could be included in GPE assuming that appropriate support mechanisms are in place. This paradigmatic shift from separate special classes to inclusive general education classes has generated philosophical discussions about the appropriateness of placing "all" students with disabilities in general education contexts (Greenwood & French, 2000; Sherrill, 1994; Stein, 1994). Sherrill (1994) estimated that 95% or more of students with disabilities were already receiving their education in GPE classes. Many argue that allowing students with disabilities to be an integral part of the entire school system with their same-aged peers promotes an acceptance of such students (Boatwright, 1993; Brown et al., 1989; Schnorr, 1990). In a similar vein, Sherrill, Heikinaro-Johansson, and Slininger (1994), and Slininger, Sherrill, and Jankowski (2000) suggested that inclusive practices in physical education could lead to positive attitudes of children without disabilities toward their peers with disabilities.
Lending support to such reasoning, Block (1995) reported that peers without disabilities exhibited generally positive attitudes toward the inclusion of peers with severe disabilities in their GPE classes.

As inclusion-related discussions continue, more and more students with disabilities who have individualized educational programs (IEP) are being educated in general education contexts (Putnam, Spiegel, & Bruininks, 1995). However, empirical evidence has shown that physical educators' attitudes range from slightly negative or ambivalent views (Murata, Hodge, & Jansma, 1994; Rizzo, 1984; Rizzo & Vispoel, 1992; Rizzo & Wright, 1988) to favorable views toward inclusion (Doll-Tepper & DePauw, 1996; Heikinaro-Johansson & Vogler, 1996). Also physical educators' perceived competence is associated with beliefs, attitudes, and intentions (Folsom-Meek, Nearing, & Krampf, 1995; Kowalski & Rizzo, 1996; Rizzo & Kirkendall, 1995). In recent years, calls have been issued for: (a) infusion-based, disability education and training of physical educators (Kowalski & Rizzo, 1996); (b) increased professional development workshops and training opportunities with a focus on inclusion-related issues (LaMaster, Gall, Kinchin, & Siedentop, 1998; Murata & Hodge, 1997); (c) use of attitude-change strategies (e.g., practicum based instructional interventions) to promote favorable attitudes of physical educators toward teaching students with disabilities in GPE classes (Hodge & Jansma, 1998, 1999; Folsom-Meek, Nearing, & Kalakain, 2000; Rizzo & Vispoel, 1992); and (d) assurance that support personnel and other support mechanisms are in place early in the inclusion process (Sherrill, 1998).

Importantly, a number of database studies have shown that disability related infusion-based course work (Kowalski & Rizzo, 1996), preservice education (Hodge, 1998; Hodge
Jansma, 1998, 1999; Patrick, 1987; Rizzo & Vispoel, 1992; Rowe & Stutts, 1987; Stewart, 1990), in-service professional development (Jansma & Shultz, 1982), and hands-on experiences teaching individuals with disabilities (Folsom-Meek, Groteluschen, & Nearing, 1996; Folsom-Meek, Nearing, Groteluschen, & Krampf, 1999; Folsom-Meek et al., 2000) are strategies where physical educators' perceived competence and attitudes have been enhanced toward teaching students with disabilities. However, the physical education literature is sparse on the question of whether or not such strategies will significantly impact physical educators' competency in actually teaching students with disabilities. To that point, LaMaster et al. (1998) stated, “Teacher effectiveness research in physical education can no longer afford to ignore the impact that inclusion is having on how classes are conducted and how teachers are responding to the new demands and opportunities that inclusion provides” (p. 66).

There is limited research emphasizing inclusion of children with mild or severe disabilities in GPE (Vogler, DePaepe, & Martinek, 1990). Much of the literature focuses on comparisons of teacher and student behaviors in mainstreamed versus other educational settings (Silverman et al., 1984; Vogler et al., 1990). The number of students served under IDEA and Chapter 1 of the Elementary and Secondary Education Act increased by 23% from the period 1976-1990 (U.S. Department of Education, 1992) and this ascending trend continues (DePauw & Doll-Tepper, 2000). It is estimated that approximately 10% of the school-age population are identified as students with disabilities (DePauw, 1996). Thus, there has been a growing need for research pertaining to the efficacy of inclusion. Clearly, a need exists to investigate physical educators' general understanding of the inclusion paradigm, and as importantly, their behaviors
relative to teaching students with varying abilities and disabilities in GPE
(Heikinaro-Johansson & Vogler, 1996; Lavay & DePaepe, 1987).

**Purpose of the Study**

The purpose of this research was to study general physical education (GPE) teachers at the secondary level to determine their views and practices relative to inclusion practices. Moreover, this study sought to describe the interaction patterns of GPE teachers toward students with disabilities in inclusive physical education classes.

**Research Questions**

This study was guided by these research questions.

1. What were the overall class behaviors of two secondary GPE teachers toward students with severe disabilities in their inclusive GPE classes, and what were the frequency of occurrences and duration for specific teacher initiated behaviors toward students in these classes?

2. What were the overall views of two secondary GPE teachers toward inclusion?

**Limitations/Delimitations**

Parameters of this research were of two types: (a) delimitations which were decided upon by the researcher, and (b) limitations or those factors out of the control of the researcher that potentially impact the internal validity of the study. The observations were delimited to nine lessons each for both teachers. Furthermore, the observations were delimited to two physical education teachers and how they interacted with students with severe disabilities only. Therefore, results of this study should not be generalized to other teachers who may have students with different types of disabilities.
The study was limited in terms of the number of participants and their selection. Two GPE teachers participated in the study and the results apply only to these two participants. The study did not account for the interaction of teachers with students without disabilities. The nature of varied lesson content (e.g., table tennis, soccer, flag football) observed as well as short duration of lessons may have impacted the occasion for opportunity and how much these GPE teachers interacted with the targeted students with disabilities in their classes. Another limitation was the use of the Analysis of Inclusion Practices in Physical Education (AIPE) (Hodge et al., 2000) instrument. Specifically, although considered content valid (Place & Hodge, 2001), during the conduct of this study the AIPE instrument had not yet been validated using statistical techniques to confirm construct validity (Samuel R. Hodge, personal communication, August 14, 2001).

Definition of Terms

For clarity purposes of this study, the following operational definitions are provided.

**Appropriate behavior:** refers to student/teacher's actions as determined by the researcher that exhibits reasonable responses and acceptable behaviors toward others in the same environment. For example, if a student without a disability provides feedback to a peer with a disability (Auxter & Pyfer, 1989; Hodge et al., 2000).

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

**Inappropriate behavior:** refers to student/teacher's actions as determined by the researcher that are unreasonable and/or unacceptable such that it disrupts the activity of
others (e.g. classmates). For example, if a student unjustly criticizes his or her peer with a
disability (Auxter & Pyfer, 1989; 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).

**Inclusive class:** theoretically is a setting where all children/youth belong in total
community effort to learn, grow, and become more socially accepting of one another
(Sherrill, Heikinaro-Johansson, & Slininger, 1994; Stainback & Stainback, 1990).

**Inclusion practice:** refer to educating students with mild to severe disabilities in
general physical education settings by providing them with appropriate educational
programs according to their needs, interests, and abilities with supports (i.e., equipment,
specialized instruction, and people resource model) and assistance in order to achieve
success (Block, 2000; Block & Vogler, 1994; Vogler, Koranda, & Romance, 2000).

**Instructional inclusion:** refers to the extent of involvement among and between
students with and without disabilities in learning activities within general education
classes (Hodge et al., 2000; Sherrill, 1998)

**Physical inclusion:** refers to those physical education programs identified as having
students with and without disabilities assigned to the same general physical education
classes (Hodge et al., 2000; Sherrill, 1998).

**Social inclusion:** refers to the nature and occurrence of personal interactions among
and between peers with and without disabilities who are classmates (Hodge et al., 2000;
Sherrill, 1998).
**Teaching effectiveness:** effectiveness refers to teaching that results in intended learning (Rink, 1996).

**Views:** in this study, views refer to an aggregate of accessible beliefs (Ajzen, 1991), perspectives or assumptions held by GPE teachers about teaching students with disabilities based on knowledge, newly acquired knowledge and experiences with such students in their classes.

**Beliefs:** according to the theory of planned behavior (Ajzen, 1991), intentions to perform various behaviors (e.g., teacher gives praise to students with severe disabilities) can be predicted from attitudes toward the behavior, subjective norms, and perceived behavioral control as related to an assumed set of accessible beliefs (Ajzen, in press). It is proposed that behaviors are performed for a reason and that the posited constructs can be predictors of behavior. Moreover, a prejudgment is a judgment (an opinion, belief, view or decision) formed before due examination and consideration of adequate (or credible) evidence (Allport, 1954). Opinions, views and beliefs serve as precursors to attitude formation. Upon occasion to consider credible evidence (i.e., engage in evaluative judgments about a psychological object) a person's attitude about something impacts the way he or she appraises relevant behavior and events, and this process involves placement of the issue (attitude object) in a framework and assignment to a category - this is the process of passing judgment (Sherif & Hovland, 1961). It is accepted that this process impacts a person's intentions, which is a precursor to behavior, according to planned behavior theory (Ajzen, in press). Collectively three belief aggregates lead to the formation of a behavioral intention and given sufficient control over the behavior, individuals are likely to carry out their intentions when presented with opportunities to do
so (e.g., teacher interacts with students with severe disabilities in their inclusive GPE classes) (Ajzen, in press; Ajzen & Fishbein, in press). In this study, beliefs were defined as the foundation to attitude formation leading to behavioral intentions and eventual actual teacher behaviors.
CHAPTER 2

REVIEW OF LITERATURE

This chapter provides a review of literature across six relevant areas to inclusion practice. These areas are (a) theoretical perspectives of inclusion (b) brief history of inclusion, (c) early studies on inclusion, (d) research on attitudes toward teaching individuals with disabilities, (e) inclusive practices of teachers, and (f) model for inclusion in secondary physical education.

Theoretical Perspectives of Inclusion

Research on instruction in inclusive classrooms is extremely sparse (Pugach, 1995). Moreover, much of the research on inclusion lacks a theoretical framework (Jordan, Lindsay, & Stanvich, 1997). However, some existing theories support the practices of inclusion. Two such theoretical perspectives are reviewed in this chapter: (a) normalization theory and adaptation theory.

Normalization theory refers to making available to persons with disabilities living, learning, and working conditions as close as possible to the norms of persons without disabilities in society (Sherrill, 1998). This does not imply making individuals with disabilities “normal”. Normalization theory posits that individuals with disabilities should be given access to the same environment and opportunities as their peers without disabilities. Both Nirge (1969, 1990) and Wolfenberger (1972) have been strong
proponents of normalization theory. Initially, the normalization theory was applied only to issues relative to persons with mental retardation, but now the scope has been broadened to include all disability types in which persons are perceived as looking and behaving differently (Sherrill, 1998). Three principles underlie normalization theory: (a) behavioral and appearance deviancy can be reduced by minimizing the degree to which persons with disabilities are treated differently from persons without disabilities, (b) on the other hand, deviancy is enhanced by treating persons as if they were deviant, and (c) to the degree that persons with disabilities are grouped together and segregated from the mainstream of society, individuals will be perceived as different from others and will tend to behave differently (Wolfensberger, 1972).

Adaptation theory posits that professionals who are knowledgeable about variables are able to match abilities with content and teaching style to create optimal learning opportunities. To adapt means to make suitable, to adjust, or to modify in accordance with individual needs. Adaptation or individualization is defined as the process by which individuals and the environment reciprocally change one another (Sherrill, 1998). The process is continuous, dynamic, and bi-directional. The ultimate goal of education is to bring about change; change in the behaviors of a student. But the teaching-learning process results in changes in both students and teachers. Sherrill (1998) identified seven variables that interact in the teaching-learning process and can be altered to promote success in adaptation:

1. Physical environment variable (include space, lighting, sound, support, mirrors, umber and nature of distractors, allergens, pollens, molds, dust, temperature and humidity).
2. Object or equipment variables (e.g., balls described in terms of size, weight, color, surface, texture, sound, shape and movement).

3. Action or performance variables. Objects that move must be acted upon to operationalize speed, pathway, direction, height, accuracy, and force.

4. Psychosocial variables (refers to attitudes/feelings about self and others).

5. Instructional or informational variables (teaching styles, type of feedback, method of presenting new material, level of assistance during practice, structured use of time, physical distance between learner and teacher and model type).

6. Learner variables (include interest, previous experience, level of sport socialization, personal meaning of a new skill or activity, learning style, self-concept, strengths and weaknesses, and demographics such as age, gender, culture, ethnicity, and socioeconomic class)

Kiphard (1983) noted individual and environmental interactions as a means of maintaining dynamic equilibrium. People do not only adapt to the environment but as a matter of fact they alter and change the environment each time they respond. For example, the outcome of an interaction between a teacher and a student can be frustrating, exciting, disappointing, boring or encouraging.

**Brief History of Inclusion**

Full inclusion means educating all children with disabilities (mild to severe) in general education settings even if it involves special resources, personnel, and curricula to make it successful (Block & Vogler, 1994). The history of inclusion can be traced to a long series of social, legislative, and political events, such as the historic Brown v. Board of
Education ruling in 1954 indicating that separate education was not equal; Section 504 of the Rehabilitation Act of 1973 (Public Law 93-112) making equal participation a civil right for individuals with disabilities, and the passing of PL 94-142 in 1975 (i.e., Education for All Handicapped Children Act), which provided resources for applying this concept in public schools. In the 1950s, students with disabilities were seen as fundamentally different from students without disabilities. As a result an alternative educational model was developed for students with disabilities. This alternative model included teachers who had special training and who used special materials, equipment, and teaching methodologies. The end result was a rather elaborate dual system of education with general education on the one hand and special education on the other (Stainback, Stainback, & Bunch, 1989).

In 1954, civil rights legislation was passed (i.e., Brown v. Board of Education) that asserted that separate was not equal in terms of programs and services for persons of different races. Along similar lines, the notion of including students with disabilities in general education classrooms in their neighborhood schools (the school they would attend if they did not have disabilities) with support services was first conceptualized in the mid-1970s (Block, 1994; Brown et al., 1989; Brown et al., 1991). Later, advocates for integrating students with disabilities into general education classes used the same message that separate education is not equal as suggested in the 1954 Brown vs. Board of Education ruling.

In 1986, Madeleine Will, former Assistant Secretary for the Office of Special Education and Rehabilitative Services, U.S. Department of Education, called for full inclusion of children with mental retardation in general education. She argued for the
"regular education initiative" (REI), which was used interchangeably with inclusion. The impetus for inclusion practice came from the research work by Wang, Reynolds, and Walberg (1987) who convincingly showed that special education programs were ineffective for a variety of reasons, including economics, race, isolation, and categorization invalidity. In contrast, research on including students with disabilities in general education programs began to show benefits such as the availability of age-appropriate role models, students learning appropriate social skills, responding to natural cues, and having the opportunity to participate in a variety of school activities (Stainback & Stainback, 1990).

In recent years, physical education professionals have advocated and debated the benefits on inclusion practice in physical activity settings (Block, 1994, 2000; Block & Zeman, 1996; DePauw & Doll-Tepper, 2000; Sherrill, 1994; Stein, 1994). One often cited benefit on inclusion is that students with disabilities can gain from social interaction particularly if such interactions are positive (i.e., supportive, cooperative, respectful), frequent, and meaningful, and if equal status relationships are developed (Place & Hodge, 2001; Sherrill et al., 1994; Slininger, Sherrill & Jankowski, 2000). Furthermore, some advocates believe that inclusive physical education contexts may contribute to enhanced self-esteem for students with disabilities, while increasing social acceptance on behalf of their peers without disabilities (Block & Malloy, 1998; Hemstetter, Peck, & Giangreco, 1994).

**Early Studies on Inclusion**

Research on inclusion has focused on both mild and severe disabilities. Much of the research and writings with respect to disability issues in physical education have focused
on the teacher's view (Block, 1996). There has been little empirical data that has analyzed the possible benefits of inclusion for students with disabilities, typical peers, or teachers (Chandler & Sideridis, 1997). Semmel, Gottlieb, and Robinson's (1979) review of studies on mainstreaming revealed that there is a lack of research base to support self-contained, special education classes over mainstreaming for children with mild disabilities. Academic achievement and social adjustment of children with mild disabilities were just as likely to develop in mainstreamed environments. In addition, mainstreaming did not have any adverse effect on classroom management skills of teaching styles in general.

Madden and Slavin (1983) also noted that research actually favored placement in general education classes that used individualized instruction, cooperative learning, and resource rooms over traditional "nonadaptive" classes as long as these programs focused on self-esteem and emotional adjustment as well as academic achievement. A further benefit of these programs included greater acceptance by classmates without disabilities. The support of mainstreamed programs became strong after Wang and Baker (1986) analyzed the research base and showed that, in well-controlled studies, students with disabilities who were mainstreamed consistently outperformed their peers with disabilities who were not mainstreamed in terms of academic achievement and social adjustment.

Increasing research supports the placement of students with severe disabilities into general education settings. Studies primarily focused on social acceptance, peer interaction (Place & Hodge, 2001), and other variables that may predict successful transition from school to workplace (Chadsey-Rusch, 1990; Peck, Donaldson, & Pezzoli, 1990). Schnorr (1990) stressed the importance of including children with severe disabilities from beginning grade levels. In physical education, inclusion has been
referred to as comprised of physical, instructional, and social variables (Sherrill, 1998). In that vein, Place and Hodge (2001) described the behaviors of eighth-grade students with and without physical disabilities relative to social inclusion in a general physical education program. The participants involved were three girls with physical disabilities and 19 of their classmates (11 females, 8 males) without disabilities. Data for a 6-week softball unit were collected using videotapes, live observations and interviews. The *Academic Learning Time-Physical Education* (Siedentop, Tousignant, & Parker, 1982) and *Analysis of Inclusion Practices in Physical Education, Form S* (Hodge et al., 2000) instruments were used for quantitative data collection and analysis. Findings showed that students with and without disabilities infrequently engaged in social interactions. Average percentage of time that classmates engaged with their peers with disabilities was 2% social talk and less than 1% in each category for praise, use of first name, feedback, and physical contact. Furthermore, two themes emerged from the qualitative data: segregated inclusion and social isolation. Students with disabilities interacted with each other to a greater degree than with classmates without disabilities (Place & Hodge, 2001).

In a related study, Goodwin and Watkinson (2000) described the phenomenon of inclusive physical education from the perspective of students with disabilities. Participants were 9 elementary school-aged students (Grades 5 and 6) with physical disabilities (6 males and 3 females). The disability types were those typically found in the regular classroom (i.e., cerebral palsy, spina bifida and amputation). The setting for the study was a weeklong summer camp for children with physical disability. Participants shared their experiences pertaining to school physical education. Data were collected using focus group interviews, fieldnotes, and visual recordings. The thematic analysis
showed persistent dichotomy in how the participants experienced physical education. Good days were revealed in themes of sense of belonging, skillful participation, and sharing in the benefits. Bad days were overshadowed by negative feelings revealed in the themes of social isolation, questioned competence, and restricted participation.

Research on Attitudes Toward Teaching Individuals with Disabilities

A varied and rich body of literature is available on attitudes toward teaching individuals with disabilities. Teacher-related variables include perceived competence and experience in teaching students with disabilities, and academic preparation in special education and adapted physical education. A number of studies have emerged examining physical educators' attitudes and competencies with regard to the inclusion of student with mild to severe disabilities in general physical activity contexts (Heikinaro-Johansson & Sherrill, 1994; Heikinaro-Johansson & Vogler, 1996). The findings are that physical educators' attitudes range from slightly negative or ambivalent (Murata, et al. 1994) to favorable towards inclusion (Heikinaro-Johansson & Vogler, 1996), and that physical educators' perceived competence is associated with beliefs, attitudes and intentions (Folsom-Meek, Nearing, & Krampf, 1995). Attitudes of physical educators are more likely to be favorable in teachers who have higher perceived teaching competence (Rizzo & Vispoel, 1991; Rizzo & Wright, 1988), more academic preparation in adapted physical education (Rizzo, 1984) and practicum experience opportunities (Folsom-Meek et al., 1996, 1999; Hodge, 1998; Hodge, & Jansma, 1998; 1999; Marston & Leslie, 1983; Patrick, 1987, Rizzo & Vispoel, 1991, Stewart, 1990).

Prospective GPE teachers have expressed mixed feelings about teaching individuals with disabilities (Folsom-Meek et al., 1996; Folsom-Meek et al., 1999; Hodge, & Jansma,
1998, 1999; Rizzo, Vispoel, 1992, Rowe & Stutts, 1987; Stewart, 1991). Stewart (1991) found that future physical education teachers held favorable attitudes toward individuals with disabilities. However, Downs and Williams (1994) and DePauw and Goc Karp (1990) found that future physical educators expressed negative attitudes about teaching individuals with disabilities in general GPE classes.

Legislative mandates and the progressive shift toward the inclusion model do not guarantee favorable teacher attitudes toward learners with disabilities. Results of several studies have demonstrated that the attitudes of physical education teachers toward learners with disabilities are key variables to the success of these students in GPE classes (Craft, Santomier, Hogan, & Wughalter, 1985; Martson & Leslie, 1983). There is an increasing amount of empirical evidence that teacher attitudes toward learners with disabilities are related to both quality and quantity of professional preparation in adapted physical education and related courses (Hodge & Jansma, 1999). Teachers’ attitudes can influence their behavior towards students (Ajzen & Fishbein, 1980; Sherrill, 1998), therefore it is important to examine teachers’ attitudes towards including children with disabilities in general education classrooms, particularly as a large number of these students have moved into such settings (DePauw, 1996; Fuchs & Fuchs, 1994, McLaughlin & Owings, 1992).

Attitudes form a complex psychological system of feelings based upon evaluative reactions toward objects, persons, and institutions (Nunnally, 1970; Shaw & Wright, 1967). Kenyon (1968) defined attitudes as "a latent or non-observable complex, but relatively stable behavior disposition reflecting both direction and intensity of feeling towards a particular object, whether it be concrete or abstract" (p. 567). Favorable
attitude patterns play a vital role in learning (Seaman, 1970). A favorable attitude toward physical activity is desirable for enhancing learning (Campbell, 1969). Rizzo and Wright (1987) assessed the attitudes of high school physical educators toward teaching students with learning and physical disabilities in GPE classes. The results showed that attitudes of physical educators toward teaching students with learning disabilities were more favorable than their attitudes toward teaching students with physical disabilities. The mission of physical education in public schools can partially help explain this result. That is, the primary focus of most GPE programs is on physical and motor fitness, the acquisition of motor skills, and fundamental motor patterns for participation in a wide variety of physical activities. Perhaps some GPE teachers perceived the primary focus of the general education classes as placing too many physical demands on students with physical disabilities; thereby explaining the difference in their attitudes toward teaching students with physical disabilities in comparison to learning disabilities. Attitudes of physical educators toward teaching students with disabilities did not significantly change as grade level advanced from 9-10 to 10-12th grade (Rizzo & Wright, 1987).

Conaster, Block, and Lepore (2000) examined attitudes of aquatic instructors toward teaching swimming to students with mild to severe disabilities in an inclusive setting. Participants were 92 aquatic instructors from 28 states representing 75 cities across the United States. Data were collected using a modified version of Rizzo’s (1984) Attitudes of Physical Educators Toward Teaching Handicapped Pupils (renamed Physical Educators’ Attitudes Toward Teaching Individuals with Disabilities – Swim). Findings showed that aquatic instructors were significantly more favorable toward teaching aquatics to students with mild disabilities than students with severe disabilities.
Furthermore, results indicated that conducting an inclusive aquatic program was the best predictor of favorable attitudes toward including students with mild disabilities, while having more certifications in aquatics was the best predictor of favorable attitudes toward including students with severe disabilities in general aquatic programs.

Generally, results of previous studies showed that children with disabilities were engaged in physical activity consistently “but not substantially less than their nondisabled peers” (Block & Vogler, 1994, p.41). Inclusion does not seem to be an obstacle to the learning process for children without disabilities. Some studies have been conducted to assess the appropriateness of inclusion from the perspective of social and motor performance outcomes (Block & Zeman, 1996; Beuter, 1983; Karper & Martinek, 1983). Consistently, results of research in this area indicate that self-concept and motor performance were favorably enhanced in inclusive settings for children with mild to severe disabilities (Block & Zeman, 1996; Beuter, 1983; Karper & Martinek, 1983).

Research on attitude has showed that both students and teachers generally were favorable towards inclusion although teachers were more favorable towards students with learning disabilities than students with more severe disabilities (Hodge & Jansma, 1998; Rizzo, 1984). Research also showed that “hands-on” experiences teaching individuals with disabilities improved teachers' attitudes towards students with varied disabilities (Folsom-Meek et al., 1999; Folsom-Meek et al., 2000; Rizzo & Vispoel, 1992).

Baines and Baines (1994) studied an inclusive classroom over seven months in a middle school setting. They recounted events of a teacher having to interrupt her classroom and leave her students unattended for 20-minutes in order to attend to the bathroom needs of a student with disabilities. Survey results of these schoolteachers
identified how few teachers had received any training that helped them to deal with students with disabilities (Baines & Baines, 1994). Similarly, Heikinaro-Johansson, Sherrill, French, and Huuhka (1995) studied two inclusive GPE classes that adhered to a consultant service model over a two-month period. Videotaped observations, interviews, and journals revealed numerous benefits of both intensive and limited consultant models, as well as challenges that were met and problems that required continued work.

Until recently support for inclusion of children with severe disabilities is based more on notions of appropriateness and social justice than on what had been known from research (Stainback & Stainback, 1990). In recent years, research in physical education on inclusion of students with severe disabilities into GPE has emerged (Block & Zeman, 1996; Goodwin, 2001; Goodwin & Watkinson, 2000; LaMaster et al., 1998; Murata & Jansma, 1997; Murata et al., 2000, Place & Hodge, 2001; Slininger et al., 2000; Vogler, Koranda, & Romance, 2000).

Block and Zeman (1996) examined the impact of including 6th grade students with severe disabilities (i.e. severe mental retardation) who were given support services into a GPE class. Specifically they examined the impact of inclusion on motor skill development and the attitudes of students without disabilities toward their peers with severe disabilities. The participants involved two intact 6th grade GPE classes from a middle school (grades 5 and 6) in a small Mid-western city. The experimental group (C 1) consisted of 28 students (12 female, 16 male), three of these students had severe mental retardation and had been included in the GPE class and other academic classes for approximately 3 months prior to the conduct of the study. The control class (C 2) also consisted of 28 students (15 females, 13 males); none of these students had any known
disabilities. In both C 1 and C 2, the same general physical educator provided daily physical education instruction. For C 1, an adapted physical educator and two teacher assistants were assigned to the 3 students with disabilities to provide daily support. Furthermore, the 3 students with disabilities had Individualized Education Programs (IEP). The physical educator assisted in developing and implementing modifications to all physical activities; directed the two teacher assistants and students without disabilities in assisting their 3 peers with disabilities, and conducted ongoing evaluations of the students with disabilities.

In their study, Block and Zeman (1996) tested two hypotheses. Hypothesis 1, stated that with support, such as peers, teacher assistants, and adaptive equipment, the effects of inclusion on motor skill performance of students without disabilities would be minimal. Hypothesis 2, stated that in accordance with contact theory (Allport, 1954), students without disabilities who were systematically exposed to students with disabilities would have favorable attitudes towards inclusion in physical education. Block and Zeman (1996) found no differences in skill improvement between the two groups except in dribbling, which favored C 2. C 1 showed significantly greater pretest scores in general and sport-specific attitudes toward peers with disabilities compared to C 2, but there were no differences in gain scores for either general or sport-specific attitude. 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 examined by Block and Zeman (1996) were favorable towards peers with disabilities, it is important to focus on the amount of support provided and how it may have had a confounding impact on the students without disabilities attitude toward their peers with disabilities.
Along these lines, Murata and Jansma (1997) studied the influence of support personnel on students with and without disabilities in GPE at the secondary level and found that achievement was only marginally better than in experimentally controlled arrangements without added teacher resources. On the other hand, Vogler, Koranda and Romance (2000) examined an inclusive physical education kindergarten class containing a child with severe spastic diplegic cerebral palsy. Specifically, the study was to evaluate the effectiveness of an inclusive physical education class in which a people resource modification (i.e., an adapted physical educator) was employed full time to provide instruction for a child with severe spastic diplegic cerebral palsy. The researchers used a case study method. Participants were a kindergartener (6 years of age) with severe disability, 20 classmates without disabilities (5-6 years of age), an adapted physical educator and a general physical educator. Traditional movement exploratory activities were taught on a daily basis over 18 weeks at 30 min per session in the fall of the school year. Goals focused on the development of fundamental skills, fitness, and dance with an emphasis on such themes as pathways, levels, forces, speed, and relationships. Data were collected periodically by systematic observation (Academic Learning Time-PE) and by interview during an 18-week period in the fall school semester. Twenty percent, or approximately one class per week were analyzed that were movement exploration in nature. Results indicated that inclusion classes were highly effective in time engagement and management and the qualitative nature of inclusion was one of widespread social acceptance and successful motor participation. It was concluded that the use of a people resource model, with an adapted educator, was a highly effective inclusive practice (Vogler et al., 2000).
LaMaster et al. (1998) studied six elementary physical education specialists (5 females, 1 male) to obtain their views of inclusion practices and perceived outcomes. These teachers were chosen as participants for their effectiveness. Data were collected using two forms for demographic information, and interviews. All the teachers were observed teaching classes during the period of the study. Interviews were tape-recorded and transcribed for analysis. Findings revealed four main themes: (a) multiple teaching styles, (b) student outcomes, (c) teacher frustrations, and (d) differences in inclusion practices. Results indicated that schools provided little support, and teachers stated that they were inadequately prepared to teach effectively within inclusive classes. These teachers had strong feelings of guilt and inadequacy as they continued to try to be effective for all children.

Recently, Slininger et al., (2000) compared the effects of 3 physical education settings (structured contact, nonstructured contact, and no contact) on attitudes of children toward peers with severe mental retardation who used wheelchairs. Participants were 131 Grade 4 students in 3 intact classes that were randomly assigned to treatments. The experimental conditions were: (a) structured contact, (b) nonstructured contact, and (c) control, no contact. Two students in wheelchairs were integrated into each contact class, and a special helper model was implemented. The experimental period took 4-weeks of 20 sessions with 25-minutes each. The study tested four hypotheses: (a) there is no significant difference between genders; (b) there is no significant difference between groups (structured, nonstructured, control); (c) there is no significant difference between times; and (d) there is no significant interaction of gender, group, and time. Assessment of attitudes revealed that females without disabilities had significantly better attitudes
toward classmates with severe mental retardation and used wheelchairs in a physical education setting than males without disabilities. Slininger et al. also reported that males in the structured contact group improved significantly on the adjective checklist, whereas males in the nonstructured contact group improved significantly on the intention survey.

Inclusive Practices of Effective Teachers

Teachers with an established reputation for working well with students with disabilities are to be found in most schools. What is necessary for inclusion to successfully occur is the improved performance of educators from varied disciplines relative to practices known to work with the students they seek to include in general education classrooms (King-Sears & Cummings, 1996).

The literature on effective teaching abounds in specific teacher behaviors that are positively related to the academic achievement of both the general and special education students (Berliner, 1995; Greenwood, Arreaga-Mayer, & Carta, 1994). Metzler (1990) conceptualizes effective teaching as that which makes an impact on student learning. Effective teaching skills cannot be divorced from student learning, which is measured as outcomes directly or by identifying situations likely to lead to increased learning. Evertson and Brophy (1978) defined the effective teacher as one who finds ways to keep students appropriately engaged in the subject matter a high percentage of the time and does so without resorting to coercive, negative, or punitive classroom techniques. Effective teachers clearly define the goals and objectives of their lessons and the expected student outcomes, while relating new learning to previous instruction and students' background experience (Lenz, Alley, & Schumaker, 1987; Rosenshine, 1985). The mode of assessments and tests conducted are also aligned to the goals and content.
covered (Cummings, 1992; Fuchs & Fuchs, 1994). Effective teachers structure their
instruction in such a way that students have a high success rate with various tasks to
enhance their self-esteem and raise their level of motivation (Rosenshine, 1985).
Effective teachers demonstrate target skills and strategies for students, provide a variety
of exemplars, and allow for guided and independent practice (Englert, 1984).

Cooperative learning, curriculum-based assessment, learning strategy instruction,
direct teaching procedures, and behavior management techniques are among the available
practices that facilitate inclusion (King-Sears & Cummings, 1996). Classwide Peer
Tutoring (CWPT) is an instructional arrangement that works well in general education
classrooms as an inclusive practice (King-Sears & Cummings, 1996). It provides
opportunities for each student to (a) work on his or her instructional level, (b) function as
tutor and tutee, (c) interact with other students of varying skill and ability levels, and (d)
participate in an instructional arrangement featuring group-oriented contingencies that
focus on the collective performance of all tutoring pairs (Delquadri, Greenwood, Stretton,

Managing behaviors in inclusive settings requires both classroom management
techniques and individualized methods. Self-management techniques have been quite
effective for teaching students how to monitor and manage their own behaviors (King-
Sears & Cummings, 1996). Self-management techniques consist of self-monitoring, self-
evaluation, and self-reinforcement (Carr & Punzo, 1993; Cole & Bambara, 1992). Self-
monitoring involves teaching students how to observe and record their behavior; self-
evaluation focuses on the quality of behavior; and self-reinforcement provides a
preselected reward for the student when a certain amount of quality behavior has been
exhibited. Self-management techniques have enabled students with disabilities to improve their behaviors in completing independent seatwork assignments (Carr & Punzo, 1993), following classroom rules (Clark & McKenzie, 1989), increasing on-task behavior (Shapiro & Klein, 1980), completing prevocational tasks (Hughes & Boyle, 1991) and decreasing disruptive behaviors (Kern, Dunlap, Childs, & Clarke, 1994).

Olson, Chalmers, and Hoover (1997) studied the attitudes and attributes of 10 general education teachers (elementary and secondary) identified by school principals and special educators as effective inclusionists. Seven themes emerged from the interview data related to personality, attitude, expectations, teaching methods, and viewpoints. All participants showed common interpersonal characteristics of tolerance, reflectivity, and flexibility. The teachers expressed to varying degrees that they were as responsible for the education of students with disabilities as they were for those not identified. The teachers described positive relationships with special educators and expressed a desire for more support. Participants agreed that modification, that is, individualization of expectations was a requisite behavior for effective integrated services. Elementary school teachers believed that they needed to provide environments fostering student development through interpersonal warmth and acceptance in interactions with students. Secondary teachers described their behavior toward students in a manner that could best be characterized as "approachable". All the participants felt that insufficient time was available for collaboration and expressed the view that the support of specialists was essential for the success of inclusionary practices.

Stoddard et al. (1996) reported the changes that occurred when a teacher adapted the curriculum and classroom environment to meet the needs of a student with an emotional
disturbance. Data were collected over a seven-month period by the classroom teacher through the writings of a teacher-student interactive dialogue journal, a peer/self-monitoring form, and the maintenance of a student academic progress portfolio. With the changes in curriculum, the student’s grades improved markedly and a definite positive change was observed in the student’s attitude toward school and his desire for academic success.

Although some effective teacher behaviors may appear to be subtle, they are nonetheless powerfully correlated with student achievement and are essential to use in teaching students with mild to severe disabilities. The use of teaching behaviors does not, by itself, represent the sufficient conditions necessary for inclusive instruction (King-Sears & Cummings, 1996).

Model for Inclusion in Secondary Physical Education

Block (1994) provided three reasons why including students with disabilities in general middle and high school physical education could be problematic for the general physical educator than including these same students into elementary school physical education. The first reason is related to size and speed of middle school and high school students. Specifically at secondary level, students are typically bigger, stronger, and faster than elementary–age students, and any collision with a student with disability may be hurtful. Block’s second reason is related to skill and knowledge level. While many students at the secondary level have efficient and automatic movements, many students with disabilities may still be learning fundamental patterns of movement. This creates a problem for equalizing games without making the student with disabilities fail or without completely changing the nature of the game for the more skilled students. The same
applies to knowledge of the rules. Lastly, the attitudes of secondary school students pose a problem. Whereas elementary school-age students may be tolerant of classmates with disabilities, some secondary school students resort to inappropriate behaviors (teasing, verbal abuse, and pranks) toward classmates with disabilities. Consequently, a student with a disability who has limited motor skill may prefer not to participate in class activities to avoid ridicule.

A systematic approach to including students with disabilities in general middle and high school physical education can be outlined as follows: (a) determine student’s individual goals and objectives - what to teach, (b) analyze general physical education curriculum - how does the student’s IEP fits into the general physical education curriculum, (c) determine how program will be implemented - how often, where, how much, what cues and prompts, what modifications, (d) determine who will assist student, (e) preparing staff/student for inclusion - briefing and (f) implementing the program - implementation and evaluation (Block, 1994).

Chapter Summary

In this review of literature several relevant areas were highlighted: theoretical perspective to support the practice of inclusion; and the historical context of the inclusion movement with regard to social, legislative, and political events. The studies reviewed constitute early and more contemporary research efforts on inclusion, teachers and students without disabilities attitudes toward children/youth with disabilities, and inclusive practices of effective teachers. Much of inclusion research has been focused on either mild or severe disabilities, and stressed the importance of including students with disabilities in general education. Studies conducted relative to physical educators’
attitudes and competencies toward the inclusion of students with disabilities in general physical activity settings have range from slightly negative to positive. How competent teachers feel their ability to teach students with disabilities is, how adequate their academic preparation in adapted physical education; and experiences with individuals with disabilities are critical variables that affect their attitudes toward teaching in inclusive physical education settings (Kowalski & Rizzo, 1996). Inclusion studies are few, and mostly descriptive. Effective teacher behaviors correlate with student achievement and are essential to use in teaching students with mild to severe disabilities. Even though including students with disabilities in general secondary school physical education is problematic, it is feasible.
CHAPTER 3

METHODS AND PROCEDURES

The purpose of this chapter is to present the methods and procedures that were used to examine inclusion practices of two physical education teachers and how they interacted with students with severe disabilities in inclusive GPE classes at the secondary level. To that end, this chapter has the following sections: (a) setting and participants, (b) research site, (c) instrumentation and data collection procedures, and (d) data analysis.

Setting and Participants

Two secondary general physical education teachers (n = 2) volunteered to participate in this study (Table 3.1). Both teachers taught in suburban public schools in Central Ohio. Selection of teachers for this study was based on three criteria. The first criterion was secondary level of general physical education classes with teachers who had established reputations as effective teachers. Both participants taught secondary physical GPE in their respective schools. The rationale for choosing to conduct the study at the secondary level was to extend similar work that had already been conducted at the elementary school level (LaMaster et al., 1998) and more important, because the implementation of inclusion at the secondary level may be different from that at the elementary level. There exists the need for additional studies that investigate inclusive practices in secondary level settings (Butler, 2000; Murata et al., 2000; Place & Hodge, 2001).
The second criterion was teaching effectiveness. Both teachers were GPE teachers with an established reputation as effective teachers. University faculty and GPE colleagues who had conducted similar work with those same teachers recommended the two study participants. Moreover, both teachers have had more than seven years of teaching experience in their respective schools.

Lastly for the purposes of this research, it was important to study teachers who taught in inclusive classes containing students without disabilities and at least one or more students with moderate to severe disability (Table 3.1). For this study, severe disability was defined as an individual having limited voluntary movement ability, inconsistent ability to communicate, medical complications, and an inability to function independently (Jansma, 1999). For this study, although GPE classes under study had more than two students with disabilities in each class, only two students in each class met the criteria for the study, they were therefore purposively chosen to serve as target students for teacher interaction.

Tim and John (pseudonyms) were the two physical education teachers who participated in this study. Tim’s school site was located in a suburban area with middle to upper socioeconomic class families. Approximately 70% of the student population was white American. The school was housed in a large complex building with modern facilities. The school had two multi-purpose gymnasiums, a weight room, and playing fields for the different physical education programs. Tim was responsible for five different physical education classes per day (1st, 2nd, 4th, 6th and 7th periods). For this study, Tim’s combined class of 9th and 10th graders that met during the 2nd period was observed for 9 lessons during a table tennis unit. Tim had 24 students in this particular
class, with 4 students identified as having disabilities. Three of these students were classified as having multiple disabilities and the 4th student had muscular sclerosis and used a wheelchair. Only 3 of the 4 students in this class had an Individualized Education Program (IEP). The student with muscular sclerosis did not have an IEP. Tim was a white American male high school GPE teacher. Tim had graduated from the physical education teacher education (PETE) program at the local university. He had seven years of teaching experience as a secondary GPE teacher. He was working toward a master's degree in physical education. Tim had taken only one adapted physical education course at the undergraduate level and indicated that he had not taken part in any practicum training experience, where he taught students with disabilities nor workshop training on inclusion. Three of the classes taught by Tim had the services of a teacher's aide. The length of the tennis unit was 4-weeks and the class sessions observed lasted for 35-minutes. Skills taught during the period of observation included the serve, forehand and backhand drive, half-volley, forehand and backhand drop shot and forehand and backhand backspin. Students also engaged in singles and double plays and were evaluated on the skills learned on a pass or fail basis.

John's site was located in a suburban area in Central Ohio. The population of the school was approximately 1,800 students. The ethnic composition was predominantly white American. The school had modern facilities and equipment, as well as multiple large playing fields very conducive for a successful physical education program. John was a white American male who had taught GPE for 26 years. He was a secondary physical education teacher. During the conduct of this study, John taught six classes per day with a total of 148 students. In previous years, John had earned his master's degree in
physical education. He had taken only one course in adapted physical education during his undergraduate teacher preparation program some 26 years earlier and has had no inservice training on teaching students with disabilities in GPE. The lessons observed for John were the GPE class sessions taught during the 7th period. This one class was followed throughout the data collection period of observation. The students were in the 9th grade level. The class consisted of students who represented a range of academic functioning, including 6 students with disabilities. A total of 17 students were in the class observed, of which 6 were students with disabilities. The disability types were learning disability, developmentally delayed, and severe emotional disorder. Students with severe emotional disorder were used for this study. The content of the lessons during the period of observation varied from soccer, tennis, to flag football. No services were provided from an adapted physical education specialist. However, the local county Board of Mental Retardation and Developmental Disabilities provided services for students with disabilities outside the physical education class. John had no teacher aide to assist him in his class.

**Research Site.** The sites for this study included two high schools in Central Ohio. Permission to conduct the study was provided from the principals of the schools and from The Ohio State University Human Subjects Institutional Review Board (Appendix E). The investigator did not know the participants in the study. Contact with the participants was first made by telephone and via electronic mail (e-mail) correspondence. The researcher then visited the teachers at their schools and asked them whether or not they would be interested and willing to participate in this study. The investigator assured the
participating teachers and schools of confidentiality and anonymity in relation to
collection of data and dissemination of results.

Moreover, parents gave their consent to have their children's class sessions videotaped
for the purposes of this study.

<table>
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<tr>
<th>Teacher</th>
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<th>Class Size</th>
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<th>Disability Types</th>
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<td>4</td>
<td>3</td>
<td>MD</td>
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<td>SED</td>
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<td>24</td>
<td>1</td>
<td>1</td>
<td>DD</td>
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<td>7</td>
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</tr>
<tr>
<td>John</td>
<td>9</td>
<td>20</td>
<td>3</td>
<td>2</td>
<td>SED, LD, DD</td>
</tr>
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<td>4</td>
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<td>LD</td>
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<td>19</td>
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</tr>
</tbody>
</table>

*Denotes one teacher aide in the physical education classroom.

**Denotes classes followed for observation

Note. MD = Multiple Disabilities; DD = Developmentally Delayed; HI = Hearing
Impairment; SED = Severe Emotional Disorder; LD = Learning Disabilities

Note. No. SS = Number of students with disabilities.

Table 3.1: Demographic Information of Classes and Students for Physical Education Teachers.
Instrumentation and Data Collection Procedures

To secure demographic information about these teachers, two forms (developed by LaMaster et al., 1998) were used. The first form - [Form A] sought information concerning the makeup of the classes that these teachers taught (class grade, number of students, number of students with special needs, number of IEP, etc.) (Appendix A). The second form [Form B] was used to gather teacher’s information concerning educational background in adapted physical education, access to services for students with disabilities, and any additional responsibilities these teachers had concerning students with disabilities such as physical lifting and medical assistance (LaMaster et al., 1998) (Appendix B).

In addition, Hodge et al. (2000) Form T (Analysis of Inclusion Practices in Physical Education [AIPE], Teacher Version) designed to measure frequency of teacher interactions during physical, instructional, and social inclusion practice was used (Appendix C). In this study, the teacher's interactions with student(s) with disabilities in instructional and social activities were measured (e.g., teacher physically assists student with disability, teacher talks to student with disability). The AIPE has established content validity and involves the observation of lessons by trained observers and has been used recently in collecting data in related research (Place & Hodge, 2001). This behavioral observational instrument measures the frequency of specific teacher initiated behaviors with all students, both with and without disabilities (e.g., teacher physically interacts with student(s) with disability). Each behavior emitted during the observation session was coded using the appropriate behavioral category label. For example, if the teacher provides verbal instructions to a student with a disability at any time during the
observation session, a tally is made against that category. In contrast, if the teacher uses sarcasm with the student with a disability, the tally mark is circled to indicate inappropriate verbal communication (Cooper et al., 1987; Hodge et al., 2000). The demographic data portion of the coding sheet includes the start and stop of lessons, description of type/severity of students’ disability, space for general and specific comments, a summary of data and other relevant information needed for a lesson (Appendix C).

The AIPE coding instrument follows an event recording protocol for all categories except Instruction (I) and No interaction (N), which are monitored using duration recording. Time is recorded when the teacher is in instruction. Time can be entered by the exact length of the episode (e.g., 5-minutes) or by the episode’s start/stop times (e.g., 10:30-10:45 am).

Event recording is the appropriate tactic for collecting data on particular aspects of events and/or behaviors. It provides data on the frequency of occurrence of a discrete event (Cooper, 1974). The observer must be able to discriminate a definite beginning and end to the event for both verbal and nonverbal statements. The fundamental and appropriate unit of measurement for data generated from event recording is frequency, where the length of the observation period is constant across sessions. However, the rate of response is more appropriate if the length of observation varies from one session to the next (van der Mars, 1989). The AIPE instrument captures these key behaviors of the teacher in an inclusive physical education setting:

**Modification (M).** Teacher changes rules, equipment and/or activities to engage students with disabilities in class participation.
Support (S). Teacher assists student with disability. This includes physical support related to the child's disability, providing supportive equipment, and asking support personnel (e.g. adapted physical education specialist) to assist student.

Psychological safety (PS). Teacher promotes psychologically safe interaction between students with and without disabilities before, during, or after class session. For example, teacher praises students with and without disabilities for working cooperatively together. A second example, teacher stops or desists students from making negative comments toward their peers with disabilities.

Peer Interaction (P). Teacher calls students with or without disabilities to interact during game play and/or physical activities or testing sessions.

Verbal communication (V). Teacher makes statements, comments, and provides feedbacks specifically to student(s) with disability.

Physical interaction (PI). Teacher physically interacts with student(s) with disability (e.g. pushes students wheelchair). This also includes social interactions such as touching, shaking hands, or giving high fives.

Instruction (I). Teacher demonstrates and explains activities to student with disability providing individual attention. This includes focused (active) observation of skill attempts, and practice with student with disability.

Diversion (D). Teacher reacts to external stimuli. This includes interruptions from outsiders, responses to emergencies, and the teacher's voluntary choice to be detached from the lesson.
No Interaction (N). No interaction between teacher and student with disability (e.g., teacher engaged with other students or teacher appears to avoid contact with student with disability).

Training Procedures

One graduate student and the researcher served as coders using the AIPE (Teacher Version, Form T) system to code lessons. The coders were familiar with observation systems related to observing and recording teacher behaviors. Furthermore, the coders were graduate students within the Sport and Exercise Education specialization area with an emphasis in adapted physical education, and had completed a graduate level course in supervision and had learned to use a similar observation system for coding student behaviors (i.e., the Academic Learning Time for Physical Education instrument by Siedentop, Tousignant, and Parker, 1982). For this study, a two-day training session (approximately 8 hours) was conducted by the researcher for high quality training in the use of the systematic observation coding. The length of time needed to learn the observation system did not require a longer time since the instrument was less in complexity and fewer categories than more frequently used systematic observation instruments (Metzler, 1990). Training adhered to instructional principles such as successive approximations and ample positive reinforcement in teaching the first trained coder appropriate observation, recording and interpersonal skill (Barlow & Hersen, 1984). During the training sessions, the coders discussed basic purpose of the observation system, learned the definitions of all the categories, learned how to use the coding form and then practiced coding from videotapes. The training sessions followed systematic observational steps as recommended by Metzler (1990).
The coders first met to discuss the purpose of the videotaped observational system and to familiarize themselves with the target definitions. Next, coders viewed portions of a videotape to recognize examples of target behaviors, to know when a defined behavior had occurred and when it had not occurred. Coders went back and forth until there was an agreement on the occurrence of defined behaviors. After that the coders studied the system's recording sheet and procedures as they practiced coding with the instrument from videotapes samples independently. When coders felt they had had enough practice they now practiced coding simultaneously from the same video clips, yet independently to establish interobserver agreement to indicate reliability with the instrument.

**Interobserver Agreement**

The degree of measurement consistency of an instrument was referred to as reliability (Thomas & Nelson, 1990). Reliability also refers to consistency, stability and observer agreement. Interobserver agreement refers to a situation in which the observation records of one observer are compared to those of a second observer (van der Mars, 1989). From this study, interobserver agreement (IOA) was determined by percentage agreement which is calculated by dividing agreements by agreements plus disagreements multiplied by 100: \( IOA = \frac{\text{Agreements}}{\text{Agreements} + \text{disagreements} \times 100} \) (see van der Mars, 1989, p. 56). Generally, a reliability of 80% is acceptable (Cooper, Heron, & Heward, 1987). To obtain reliability of the quantitative data, interobserver agreement measures were employed. Two observers checked data collected using the AIPE-Teacher Version instrument. Specifically, 25% of the videotaped lessons were randomly selected for a test of interobserver reliability (Vogler et al., 2000). Training continued until the coders or observers reached a criterion of 80% or better interobserver agreement. Interobserver
agreement was calculated by categories. The interobserver reliability between coders for this study was 90%. Observer drift refers to "an observer’s tendency to change coding rules and interpret category definitions differently" (van der Mars, 1989, p.72). To forestall observer drift, coders discussed the key behaviors of the instrument before and after each coding session. In addition, coders reviewed IOA after coding six lessons (Barlow & Hersen, 1984). Reliability checks were made for three randomly drawn lessons and the IOA were 80%, 85% and 90% respectively.

Data Collection

Data collection began March 7, 2001 and ended May 11, 2001. Data were collected in one school at a time. Physical education classes were held on Monday through Friday. Different time schedules for observation were followed for both Tim at Site 1 and John at Site 2. For Site 1, the researcher made visits to the school for nine consecutive weekdays, whereas in the case of Site 2, observations were made three times in a week (Monday, Wednesday, and Friday) for three weeks. Although these physical education classes were allocated 45-50 minutes, an actual observation period ranged from 25 to 35 minutes.

Two secondary school teachers with an established reputation as effective teachers upon recommendation were contacted by telephone and via electronic mail (e-mail) to request their willingness to participate in this study. The teachers were informed of the purpose of the study, the expectations for data collection, and the approximate time commitment necessary to participate. These procedures align with those used by LaMaster et al. (1998).
Systematic Observation

This was a descriptive study (Patton, 1990) with both quantitative and qualitative data collection methods used to facilitate data triangulation (Patton, 1990). Quantitatively, systematic observation strategies were used to describe and analyze specific behaviors initiated by the teachers in their inclusive GPE classes. One class each taught by the 2 secondary school teachers (Tim and John) was observed across 9 separate lessons. A total of 18 lessons (9 lessons for each teacher) were observed and videotaped. All 9 lessons taught by Tim were for a table tennis unit that lasted 4-weeks. The 9 lessons taught by John were in soccer, tennis, and flag football (2 lessons in soccer, 6 lessons in tennis and 1 lesson in flag football). At the school where John taught, a unit was taught for 10 days and observation was made on three separate occasions per week. Each observation period lasted between 25 to 35 minutes. Lessons were videotaped and a systematic observation instrument, the AIPE-Teacher Version (Hodge et al., 2000) was used to study the frequency of specific teacher initiated behaviors. One videotaped camera for each class was used to record teacher behaviors. The camera was set up and operated by the researcher in one corner of the class (i.e. gymnasium or outside playing areas), and focused on the teacher’s interactions with the students. Classes were conducted without interruption from the researcher as the researcher assumed the role of a nonparticipant observer. Each teacher wore a wireless microphone to capture verbal interactions and other teaching verbalizations. Prior to lesson observation and videotaping, the researcher with the help of the GPE teacher selected 2 students with severe disabilities from each class for observation to serve as target students for teacher interactions during that lesson. The teacher’s interactions with the target students therefore were the focus of
observation. The purpose of the systematic observation and analysis was to measure the occurrence of specific behaviors initiated by the teacher in inclusive GPE classes.

Stimulated Recall

Stimulated recall "is a technique for gathering retrospective reports of verbal and nonverbal thought processes under conditions of explicit and informationally rich recall cues regarding a well-circumscribed event" (Shavelson, Webb, & Burstein, 1986, p.83). Participants in the current study reviewed two or three clips of videotaped events selected by the researcher that were played for one or two minutes. The stimulated recall session took place at the end of the last data collection session. Each video clip was played twice before the teacher responded to a set of questions. After reviewing the selected portions of events, the participants were asked to respond to a set of predetermined questions or probing statements to solicit their thoughts about the event relevant to their views on teaching students with severe disabilities, inclusion practices, and the lesson context. For example, they were asked "Tell me about the event, "Why did you modify the task?" "What do you think of the lesson?" The stimulated recall sessions were audio taped with the permission of the participants (Clark & Peterson, 1986; McNair, 1978; Verloop, 1988).

Interview

In addition to videotaped systematic observation and stimulated recall, the researcher conducted separate formal interviews with both teachers. Interviewing has a wide variety of forms and multiplicity of purposes. The most common type of interviewing is individual, face-to-face verbal interchange. Interviewing can be structured, semistructured, or unstructured (Fontana & Frey, 1994). In this study, the purpose of the
interview was to provide the teachers an occasion to share their views about inclusion and their teaching experiences with regard to specific classes and this allowed the interviewer to ask follow-up questions related to inclusion using a semistructured interviewing design (Giangreco, Dennis, Cloninger, Edelman, & Schattman, 1993; LaMaster et al., 1998).

One interview was conducted with each teacher. In both cases, the interviews were conducted at the end of the last data collection session. The interviewer (researcher) was somewhat direct in his approach. Interview questions were given to the teachers several days prior to the interview to allow them to reflect on their experiences and what they believe and know about inclusion. Eight prepared questions formed the basis for the formal interview (Appendix D), and procedures followed the format generated by LaMaster et al. (1998). The interview questions were given to the teachers on the second day of data collection. The scope of the questions include probes gleaning responses about any positive and negative experiences of students with moderate to severe disabilities, how inclusion impacted their teaching strategies and styles, changes in their attitudes and beliefs about physical education as a result of inclusion, and implementation of ideas and strategies to facilitate inclusion practice (Appendix D). The interviews were conducted in a quiet room arranged for that purpose. The researcher started with open-ended interview questions and posed additional questions when there was the need for clarification. The two interview sessions lasted between 20 to 25 minutes. The two interviews were audio taped, with the teacher's permission, and transcribed verbatim for analysis.
Journal Entry

Holly (1984) distinguished between a log, a diary, and a journal. A log is simply a record of performance. A diary is a more personal and interpretive form of writing. A journal serves the purpose of recording and is an interpretive form of writing. Holly (1984) defined a journal as a “reconstruction of the experience, and like the diary has both objective and subjective dimensions, but unlike most diaries there is a consciousness of this differentiation” (p. 12). In this study, the researcher kept an account of lesson events as he maintained a daily journal. At the end of each day of data collection, the researcher recorded descriptively what happened, including ideas, strategies, reflections, hunches and noted patterns that emerged relative to inclusion practice. The researcher watched, listened, periodically questioned and recorded events during the lesson. The purpose of keeping a journal was to capture and generate data about the individual lessons observed. The journaling focused on the teacher, students and the learning environment thereby providing a complete description of what went on in the inclusive physical education classes under study.

Data Analysis

In this study, data analysis for the quantitative component involved descriptive statistics (Table 3.2). More specifically, each videotaped lesson was coded using the Form T of the Analysis of Inclusion Practices in Physical Education (AIPE) instrument (Hodge et al., 2000) and these data were reported as frequencies and time durations. This included the computation of frequency for all the behavioral categories within the instrument. The frequency of behaviors for the two teachers for all the lessons they taught was presented.
Qualitatively data from the interviews, stimulated recall, and journal entries were organized and analyzed. Interview transcripts, stimulated recall transcripts, and journal notes were summarized into themes and categories related to the teaching of physical education and inclusion practices using procedures recommended by Miles and Hubermann (1984), and Goetz and LeCompte (1984). Moreover, direct quotes from study participants were used to illustrate the various themes and situate findings in the actual words of participants (Patton, 1990).

Trustworthiness is the process employed by the investigator to convince other researchers or readers that the findings are worthy of attention and valid for the context (Lincoln & Guba, 1985; Patton, 1990). One strategy for establishing trustworthiness in this study was member check. Member checking is a process of providing the data and interpretations to the participants of the study and asking them to justify and comment on the accuracy of the data or interpretations (Patton, 1990). The interview and stimulated recall transcripts were returned to the participants for their comments, clarifications, and/or elaborations or suggested changes to their original response. Both participants agreed that the transcriptions were accurate and suggested minor editing corrections which were made before the analysis.
## Research Questions

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<th>Research Question 1</th>
<th>Sources of Data</th>
<th>Type of Analysis</th>
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<td>What were the overall class behaviors of two secondary GPE teachers toward students with severe disabilities in their inclusive classes, and what were the frequency of occurrences and duration for specific teacher initiated behaviors toward these students in these GPE classes?</td>
<td>Journal Notes, Demographics, <em>Analysis of Inclusion Practices in Physical Education</em> (AIPE) (Hodge et al., 2000)</td>
<td>Qualitative Data, Quantitative Data: AIPE frequencies and durations</td>
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</table>

<table>
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<tr>
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<th>Sources of Data</th>
<th>Type of Analysis</th>
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</thead>
<tbody>
<tr>
<td>What were the overall views of two secondary GPE teachers?</td>
<td>Interviews, Stimulated Recall</td>
<td>Qualitative Data: Descriptive narratives based on common themes emerged from interviews.</td>
</tr>
</tbody>
</table>

Table 3.2 Summary of Study Methodology
CHAPTER 4

RESULTS

The purpose of this research was to study general physical education teachers at the secondary level to determine their views and practices relative to inclusion practices. Moreover, this study sought to describe the interaction patterns of general physical education teachers toward students with disabilities in inclusive physical education classes.

These interrelated questions guided the study.

1. What were the overall class behaviors of two secondary physical education teachers toward students with severe disabilities in general physical education classes, and what were the frequency of occurrences and duration of specific teacher initiated behaviors toward students with severe disabilities in these GPE teachers inclusive classes?

2. What were the overall views of two secondary physical education teachers toward inclusion?

Based on the data sources of systematic observation, interviews, stimulated recall sessions and non-participant observer notes; the findings are presented in this chapter for the two teachers and their classes. Data were presented first for Tim and then John.
Preamble for Tim’s class

Prior to the start of the lessons, Tim checked students’ attendance. The class attendance was taken in the hallway to the gymnasium. This was a regular routine. Students were assigned numbers according to the number of students in the class. These numbers were posted on the floor in the hallway. Upon entering the hallway each student was suppose to stand by his or her number as the teacher walked round to mark the attendance in his attendance and grade book. Tables (table tennis) for the lesson were already set up in the gymnasium, adequately spaced out before the start of the lessons. Classes observed were held in the gymnasium throughout the period of data collection. The students had adequate space to move freely and safely. Tim used 13 tables, 26 paddles and 26 balls for each class session he taught.

Research Question 1. What were the overall class behaviors of two secondary GPE teachers toward students with severe disabilities in their classes, and what were the frequency of occurrences and duration of specific teacher initiated behaviors toward such students in these teachers’ inclusive GPE classes?

Lesson 1

In Lesson 1 (specific to Research Question 1) for Tim’s practice, after roll taking by Tim, the students moved into the gymnasium for the start of the day’s lesson. The teacher introduced students to the Performance Objective Sheet levels 1 and 2 that spelled out the course requirements and expectation for the students depending on the level they selected. During the period of the table tennis unit students were to meet the prescribed standards in the serve, forehand and backhand drive, consecutive hits, alternative hits, half volley, forehand or backhand backspin, forehand or backhand drop shot, singles
games (15 games) and doubles games (10 games). Tim also mentioned to the students some rules that would apply during the table tennis unit regarding use and care of the tables, paddles, and balls.

Using lesson induction, the teacher prepared the students for the day's lesson by introducing the objective for the lesson, for example, the serve. Students were introduced to two styles for holding the paddle. The teacher called one student without disabilities from the class and demonstrated with him how the serve is performed in table tennis. After a couple of demonstrations and explanations, the students were to pair up with their preassigned partners and move to a table of their choice. Their task was to carry out the movement patterns through on-task practice of specific activities. After students had paired up and moved to a table, Tim walked around and gave out a ball to each of the students. The students then practiced the serves and, after some 10 to 15 minutes, played a practice game. During the lesson, Tim moved briskly in the class, interacted with both students with and without disabilities and provided feedback. On more than one occasion, Tim stopped the class and asked students to find new partners to play with. At another time Tim called the students together in order to demonstrate scoring in table tennis. In this lesson the teacher spent more time playing with Juliet (i.e. girl with a severe disability) than the rest of the students with or without disabilities. Different students without disability had the opportunity to play with the students with disability in the class. The only exception was Samuel, student with profound mental retardation who was under the constant care of the teacher's aide. There was a teacher's aide in the class who assisted Samuel during the lesson. The teacher's aide worked solely with Samuel. She made him throw a big yellow ball against an adjusted table tennis board. The teacher was
enthusiastic about the lesson and the students appeared to have enjoyed the class. When class time was up, Tim announced, “Table tennis... time is up. Don’t leave until we have two paddles on every table. Put balls in the box and let me have your level sheets”

In Lesson 1, Tim demonstrated verbal communication at a frequency of 31 (i.e., counts or occasions of verbal behavior) toward Juliet and 4 toward Frank. No frequencies were recorded for diversion, psychological safety, and modification. A frequency of 2 was recorded for support given to Juliet. Tim physically interacted with Frank two times in lesson 1, and with Juliet once. Peer interaction for Juliet and Frank was at a frequency of 3 and 5 (counts) respectively. Tim spent more time (6.10 minutes) instructing Juliet than Frank (0.43 minutes).

Lesson 2

In the second lesson, the roll taking followed the usual procedure. The same equipment was used as in Lesson 1. The lesson started with a brief revision of the serve as well as a correction of a mistake made by the teacher with regard to the serve rules. The teacher then introduced the drive (forehand and backhand) as the skill for the day’s lesson. Tim, as typical for him demonstrated the skill to the whole class with one of the students without disabilities while the rest of the students watched. After a couple of demonstrations, the students found partners and moved to a table. Tim explicitly told the class that their task for the day was to practice the serve and drive after which they were to have a practice game. For the practice games, students were explicitly told not to play with the same partner more than three times. The teacher walked around the class environment to supervise students’ play, interacted with all the students, and provided feedback. The teacher again spent more time playing with Juliet than with Frank (i.e. boy
with severe disabilities) or any of the other students with disabilities in the class. When
the teacher was not interacting (playing table tennis) with Juliet he asked one of the
students without disabilities to play with her. Tim provided Juliet with some support
during the lesson. On another occasion, for example, Tim interacted with Juliet by
officiating and keeping scores as Juliet played with another partner. Students often
changed their partners. The teacher modified the rules when Juliet played. For example,
her serve was accepted as good when the ball went over the net without bouncing off her
side of the table. Juliet’s partner was to return the ball high enough to give her time to
react.

The teacher’s aide was present in the class and worked with the student with profound
disability. She came to the class with a large paddle and a big yellow ball meant for
Samuel. When Tim went round to supervise students he stopped by briefly to interact
with the teacher’s aide and Samuel.

In lesson 2, Tim modified the rules three times for Juliet and Frank. For three times
Tim supported Juliet. No frequencies were recorded for psychological safety and
diversion Tim verbally communicated 31 times with Juliet and 14 times with Frank. Tim
physically interacted with Frank twice during this lesson. Tim spent 5.20 minutes
instructing Juliet in Lesson 2.

Lesson 3

Before the start of the third lesson, the teacher checked students’ attendance and
briefed students on the objective for the day’s lesson. Same number of balls, tables and
paddles were used as in the two previous lessons. Students were to practice their shots
and engage in practice games. In addition, they were to get some skill testing done in
between games. The teacher set aside one table in the corner of the gymnasium for testing purposes. The testing table was marked with tapes to designate the landing spots of particular shots. As usual, via Tim's instruction the students were to find their partners and move to a table. The teacher went from table to table to distribute balls to the students. Juliet was assigned a partner, and the partner was told how she should hit the ball to Juliet. Frank also found a partner (i.e. a classmate without disabilities) to play with. Testing on previous skills learned in class started on this day. The teacher tested nine students without disabilities during the class session. No student with disability was tested. Students were to select the test item from their Performance Objective Sheet. After the testing the teacher signed off on the sheet if the student met the criteria set for the level selected. Occasionally, the teacher yelled out across GPE setting, “Find a game… find a single game if you are not testing”. Tim provided feedback during the testing to students without disabilities. While conducting the test, the teacher stopped to monitor student activities. Some students stood by the testing table to watch and to wait for their turn. When not testing, the teacher walked around the class environment and supervised student behavior. Tim spent some time playing with Juliet and provided her with feedback.

The teacher’s aide worked with Samuel in the weight room throughout the period. The teacher ended the class session asking students to leave their paddles on the tables and return the balls into the box before they left.

In Lesson 3, no frequencies were recorded for support, psychological safety, diversion and physical interaction. Tim modified the rules 4 times when Juliet played. Tim did not verbally communicate with Frank. A frequency of 18 was recorded for verbal
communication with Juliet. Tim spent 2.47 minutes instructing Juliet and 0.56 instructing Frank.

Lesson 4

In the fourth lesson, the teacher took attendance in the hallway to the gymnasium. The teacher reminded the students in the class of the requirements on their Performance Objective Sheet and said, “Practice your shots before testing”. He reviewed with the class the previous skills learned and introduced students to the new skills for the day, that is, the forehand and backhand backspin. He explained the technique for the hold, spin and flight of the ball. With the help of one student without disabilities in the class, he demonstrated the skill. Soon afterwards, students collected their sheets from the folder, found their partners and moved to their tables. Tim walked around to distribute balls to the class. Frank played with a couple of different students without disabilities. Juliet was assigned a partner without disability who was provided with instructions as to how she should play the ball to Juliet. The teacher tested eight students without disabilities during the class session. No student with disability was tested. At one point, Tim left the teaching area to get more balls for Juliet. Andrew (i.e. student without disability) was reprimanded for throwing a paddle. Tim stopped in between testing to observe what was going on in the class. The teacher’s aide and Samuel came out from the weight room when it was time for the class session to end.

In Lesson 4, no frequencies were recorded for support, psychologically safe, diversion, and physical interaction. A frequency of 3 occasions for peer interaction was recorded for both Juliet and Frank. Tim exhibited more verbal communication to Juliet (12 counts) than to Frank (7 counts).
Lesson 5

In the fifth lesson, the class attendance was taken in the hallway to the gymnasium using the procedure in the first lesson. Once again, the teacher talked about the Performance Objective Sheet with the students in the class. The objective for the lesson was to teach the drop shot and how to play doubles. The teacher explained and demonstrated the drop shot with one of his colleagues. Mr. Yost is a physical educator on the staff. Tim also paired with Mr. Yost and played with two students without disabilities volunteers to demonstrate the doubles play. Tim explained the rules governing the doubles play to students. Mr. Yost was present throughout the lesson and worked throughout the lesson with Juliet. As a result, Tim had the opportunity to either test students or supervise students’ play activities. Tim tested six students without disabilities. No student with disability was tested. Tim spent some time playing with Frank. The teacher closed the class by calling for the return of all equipment and sheets.

In Lesson 5, no frequencies were recorded for modification, support, psychological safety, and diversion for both Juliet and Frank. Tim verbally communicated more to Frank (2 counts) than to Juliet (1 count). Tim physically interacted with Juliet once, and instructed Juliet for 1.18 minutes.

Lesson 6

In the sixth lesson, the teacher as usual took class attendance and followed the same procedure as in the previous lessons described. The same number and type of equipment was used in this lesson. The teacher started the lesson by talking about the Performance Objective Sheet and the total points students were expected to earn. Tim emphasized the need for the students to practice their shots before testing and not to come to the testing
table to be taught what to do. Mr. Yost was present in the class throughout the class session and helped in testing the students. At one point, Tim asked Mr. Yost walk around and supervise student’s activities. Three students without disabilities were tested. The teacher’s aide did not go to the weight room but remained in the gymnasium throughout the lesson and worked with Samuel. She encouraged Samuel to throw a ball against the board. Mr. Yost interrupted Tim while he was playing with Juliet by questioning him about some forms. While Tim was playing with Juliet the ball lodged in Juliet’s shirt and she had to go the bathroom to get it out. Tim helped her open the door and she maneuvered her wheelchair out of the gymnasium. During play, Juliet had difficulty serving the ball and returning it. As Tim played with Juliet, he made several comments and provided praise and feedback, for example, “good serve”, “There you go”, “Oh, that was close”. Juliet seemed to enjoy her time of play with Tim even though sometimes she appeared frustrated because she could not return the ball. A box of balls that was left on one side of Juliet’s table so she could pick one ball after another was pushed away in her attempt to hit a ball. Tim retrieved all the balls and continued to play with Juliet. Periodically, Tim announced to students to change their partners. In this lesson, Tim spent approximately 25-minutes playing with Juliet. Most striking was the fact that in Lesson 6, Tim verbally communicated with Juliet 205 times. Tim modified the rules for both Juliet and Frank once. No frequencies were recorded for support and psychological safety for both Juliet and Frank. In this lesson, the teacher was interrupted two times by outsiders.
Lesson 7

At the start of the seventh lesson, students convened in the hallway leading to the gymnasium for attendance to be taken. Tim checked students’ attendance the same manner as in the previous class sessions. Thirteen tables, 26 paddles, and 26 table tennis balls were used for the lesson. Teacher started the lesson by reminding the students of the testing procedures and the total number of points they must reach for their singles and doubles games. Tim also announced the start of the forthcoming class tournament. The objective for the lesson was the singles and doubles play, and testing. Students as usual found their partners and started to play among themselves. In this lesson, Mr. Yost played with Juliet while Tim tested 6 students without disabilities. No student with disability was tested. When Tim was not testing students he walked around and supervised students’ activities. Tim spent a few moments to play with Frank in a singles game. Frank took a water break. Tim also paired up with Frank and played two other students, one with disability and the other student without disability. At the end of the game they all shook hands with one another. During the play Tim frequently gave feedback and praised the students without disabilities. Frank showed his excitement about the game by bouncing on his feet, and received “high fives” from the teacher. The teacher’s aide was present throughout the lesson and attended to Samuel. During the lesson, an outsider walking across the gymnasium interrupted the teacher by engaging him in a conversation. When it was time, the teacher called for the return of the table tennis balls and students were to leave the paddles on the tables before they left the gymnasium.

In Lesson 7, Juliet received more physical interaction (5 occasions) than Frank (2 occasions). No frequencies were recorded for support and psychological safety.
Frequency for peer interaction for Frank (6 counts) was higher than the frequency for Juliet (2 counts). Tim spent more time instructing Juliet (8.37 minutes) than Frank (7.13 minutes).

Lesson 8

Prior to the start of the eighth lesson the teacher took class attendance in the hallway to the gymnasium. Students lined up according to their numbers and the teacher went round to mark them in his class log. After the attendance was taken the students entered the gymnasium for the start of the lesson. In the eighth lesson, the teacher used set induction to prepare the students minds for the day's activities. The objective of the lesson was to engage the students in singles and doubles play. Students were to choose their own partners and play no more than three games. After that they were to find new partners and continue with their games recording the outcomes on their sheets. In this lesson, Tim played with Juliet and also officiated by way of scoring in a game between Juliet and another student without disability. The rules were modified because of Juliet. For instance, Juliet's serve was deemed good as long as it went over the net even though it did not touch her side of the table. Juliet had difficulty in returning balls hit to her. Tim also interacted with Juliet and Frank by officiating in games involving the two. Mr. Yost was present in this lesson and took responsibility for testing students. At a point Mr. Yost played against two students with disabilities. The teacher's aide came in late with Samuel. As usual, she worked with Samuel engaging him in an activity of throwing the ball against the table.

In lesson 8, no frequencies were recorded for modification, support, psychological safety, peer interaction diversion and physical interaction. Tim verbally communicated
with Juliet on 52 occasions, and with Frank 16 times. Tim spent 15-minutes instructing Juliet and 5-minutes instructing Frank.

Lesson 9

In the ninth lesson, the teacher took class attendance in the same manner as in the previous class sessions. The class continued with the tournament that had begun the previous day. All the members of the class participated in the tournament except Samuel. The teacher’s aide engaged him in activities while the rest of the class played amongst themselves. The tournament was organized in such a way that one student played as many other students as possible in the class. Tim followed the tournament fixtures he had planned to assign students to their playing opponents. The pairings were such that some students had to wait for some games to finish before they could be assigned to their opponents. While waiting, students either played their colleagues in warm up games or tested on some skills. Mr. Yost was present to assist with testing. As the games went on both Tim and Mr. Yost sat down at the table and recorded results of the games and announced subsequent games. Mr. Yost tested four students without disabilities. Games involving the students without disabilities were modified in terms of rules. Their opponents were supposed to play the ball in a way that made the students with disabilities achieve success. Teacher closed the class by asking students to return all equipment.

In lesson 9, no frequencies were recorded for support, psychological safety, peer interaction and diversion. Tim showed modification two times toward Juliet, and verbally communicated with Juliet on 14 occasions. Tim spent 1.35-minutes instructing Juliet and Frank 0.54-minutes.
Table 4.1 displays the frequency distribution for Tim's behaviors by lessons. In each lesson the frequency of the teacher's behaviors toward the two target students, Juliet and Frank were recorded. The table shows AIPE codes for teacher's behaviors and the individual lessons observed.
Table 4.1: Frequency Distribution of Tim’s Behaviors Across Lessons Toward Juliet and Frank

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<th>Lesson 2</th>
<th>Lesson 3</th>
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Note 35 minutes per lesson

Note: AIPE CODE = Teacher’s Behaviors
Table 4.2 shows time distribution of Tim's behaviors (instruction and no interaction) across lessons toward Juliet and Frank. The figures show the amount of time in minutes spent by the teacher, in each lesson, instructing the target students individually, as well as time when there was no interaction between the teacher and the individual target student. The sum of the "instruction" time and the "no interaction" time is an approximation of total time. This excludes time spent by the teacher for set induction and interaction with the class as a whole.
### Table 4.2 Time (Minutes) Distribution of Tim’s behaviors Across Lessons Toward Juliet and Frank

<table>
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Note: 35 minutes per lesson
**Research Question 2.** What were the overall views of two secondary physical education teachers toward inclusion?

**Positive Views (Tim)**

Tim had a positive view about including students with disability in his classes because of his own experience with a sister who has Down syndrome. He explained:

I grew up with my stepsister who has Down syndrome. I think they [students with disabilities] should be included if they can do it...my sister was in Special Olympic program. We have always had physical activities for her. You know they [students with disabilities] can do it but at a different level. I think they should be included. (Tim, interview transcription)

Tim’s positive view about including students with disabilities had matured. He acknowledged that at the beginning he was uncomfortable teaching students with disabilities but now he was becoming a little more comfortable. His views seemed always positive to the concept of inclusion however he has concern about his competence. He stated:

Obviously when you first do it [teach students with disability] you are a little worried about whether or not you can handle it. How the class is generally going to handle it? If the class handles it well, it is easy for you. If the class is difficult with it then it becomes very difficult for you. (Tim, interview transcription)

Tim however believes that for some students with severe or profound disabilities inclusion may be very difficult. He explained:

Obviously there are some students with disabilities who really have a tough time. You see that Samuel has a very, very difficult time with anything we do. I think it’s good for Frank. You adapt the game. I know he really enjoys the weight training that I just handled. Charles and Frank have done very well on anything we have done. I think they should be included. (Tim, interview transcription)
In a typical physical education class, it is not only the teacher who must show a positive attitude for successful inclusion, but also the students (Block, 1995, 1996; Murata, Hodge & Little, 2000). Tim found his positive views influenced by the attitude of the students without disabilities in the class. Tim stated that "I have not had any one of the students to complain about I need to go and hit with [student disability]. I need to play... not just in this class but in the other classes that I teach." Tim indicated that the students without disabilities were willing and ready to work with those students with disabilities and they understood them. He assumed that probably it was because the students with disabilities have been included for some time now and the students without disabilities know them.

Inclusion Practices (Tim)

Tim's teaching experiences in an inclusive setting in two different schools gave him the opportunity to compare and talk about different inclusion practices. In his former school, although the degree of severity of students with disability in his classes was not as severe as now, he had seven or eight students with disabilities in his classes with no teacher aide. He had no access to an adapted physical educator. There was no provision in his school for special classes in physical education. Tim's "biggest, negative experience with inclusion had been the responsibility of teaching a large number of 35 students with "probably half the class having some form of an IEP and with no aide". He indicated that the practice was different in his present school and that here there had not been any negative experience. He explained:

I have not had that here. Here, I have had nothing negative. The kids [both students with and without disabilities] are great and the teachers. We [teachers] come and try to think... what can the kids do... what can we put them in, getting
them [students with disabilities] into things they can include. (Tim, interview transcription)

Tim had between zero and four students with disabilities in the five classes he taught. In three of these classes he had a full time aide. The district provided for consultative services of an adapted physical educator once a week. Tim really found the services of the teacher’s aide and adapted physical educator provided worthwhile.

Up here, I really enjoy it. I guess that has to do with the aides who come down, the teachers [adapted physical educators] who come down, we have meetings to do what is best for those students and get them in situations where other people [students without disabilities] are going to be comfortable and be safe and not having problems with that. (Tim, interview transcription)

He compared those practices and provisions to his former school. He stated:

As compared to the last school where I was, they almost threw them in there. You were on your own. And with a lot more students probably not double depending on the class but maybe 35 students compared to 22 in here. And the situations then were you may have 35 students, but you didn’t have enough equipment for about 18 students. So you have half of the class sitting down and half of them playing. Trying to do that was the hardest. (Tim, interview transcription)

He continued:

But up here, I enjoy it. I mean, we [the class as a whole] all enjoy it. It’s nice to see them [students with disabilities] come down everyday. And you see them [students with disabilities] in the hallway. (Tim, interview transcription)

Tim was well-informed concerning IEPs and what it means to the student with disability. Tim described the situation where one student with disability had no IEP and he had to advise the student’s mother in getting the student an IEP. He pointed out:

And like I said, I mean Juliet doesn’t have an IEP. You know what it is. You know it is kind of difficult to believe. And I think it is...for whatever reasons obviously a bad decision for Juliet. But I think they are losing some services that they would have had. And Juliet’s Mom was here last week talking about that and
I think we kind of convinced her maybe in getting one. She is going to be open in getting some more services from the adapted physical education teacher... And in fact Juliet’s Mom and I were talking about that and we said if we get her one IEP then you [mom] can request that she [APE specialist] comes in even if she comes in once a week, for Juliet really enjoys the weight lifting. Come in once a week, take care of her class, take her to the training room and do some weight lifting. Again she [APE specialist] is district-wide and so she goes to school to school. So she is only here usually on Mondays. (Tim, interview transcription)

It was clear that Tim had not regularly attended IEP meetings. He remarked that for the IEP meeting he attended, the parents knew what they wanted in getting an IEP. There was not a whole lot of discussion about it. Tim said that in his first year in the school the head of department would attend the IEP meeting and inform them about students with IEPs. He sometimes did not read the IEPs, but would let the student come in and see what he or she can do. He received information about students with IEPs from his head of department and tried to implement goals and objectives as best he could.

Usually we are invited to the meeting but I don’t organize it. And I think I have been to one to see what it is like. But I think, that will be about it that we are involved with it. We are invited to meetings...and then I think for us [teachers] using it you almost adapt what they [student with disability] do when you are down here. You can kind of make up the game as you go and see what they are able to do and obviously you try to get them do as much as they can. (Tim, interview transcription)

Tim talked about the degree to which inclusion has affected the learning environment generally. Tim felt that the social effects for the students with disabilities had been positive rather than negative. He felt he had no negative things to say, and that the students without disabilities had been great, and that they have always showed the willingness to work at the level of their peers with disabilities and also to make adaptations.

I mean...I cannot even say enough good things about them. No one is mean to the students with disabilities. No one is saying bad remarks about them [students with
disabilities]. They are very helpful to them [students with disabilities]. (Tim, interview transcription)

Tim went on to talk about some modifications he made in order to include students with disabilities.

When we did football, we just run another play and extra play. We didn’t count, just so they [students with disabilities] will be included. And they get the ball and run and things like that. (Tim, interview transcription)

One concern, however, expressed by Tim was the fact that with students with disabilities in the class, he needed more time and they required more attention. Tim had to spend a little more time to work with those students with disabilities. He explained:

Obviously with teaching you have to spend a little more time, work with them [students with disabilities] as individuals and that explains why Mr. Yost came last week to help. He came to work throughout the period and the other day he came to assist in conducting the test. And that helps a lot. (Tim, interview transcription)

Tim explained that the assistance he received from the teacher was not set up.

I think with Mr. Yost here, it was just a situation where he happened to be here. It is not something we set for them [students with disabilities]. We haven’t had that set up in any of my classes. (Tim, stimulated recall)

Tim’s style of teaching involved direct instruction and also encouraged students to work with their peers. Apart from the time, Tim does not believe that the inclusion of students with disabilities has affected his teaching style and strategies. He mentioned, “I don’t think it has affected it a whole lot. I think I am still doing what I would have done whether they were here or not.” His strategy was to get the class started then “spend a few more minutes with them (students with disability) helping them out… but I don’t think it has affected my teaching style and how I want to teach.”
At Tim’s school the ample supply of equipment and facilities and the presence of a teacher aide helped to facilitate daily instruction and inclusion practice. Tim agreed that modifications of rules, equipment and activity are necessary to accommodate students with disability.

Challenges (Tim)

Tim felt ill prepared to handle some of the students with severe disabilities in the class. He stressed the need for adequate preparation and training. As an undergraduate student he had taken only one course in adapted physical education yet believed that students with disabilities should be treated like anybody else. He made these comments on the issue of dealing with students with disabilities.

I just treat them like anybody else. You treat them nice, and you treat them like any other students and then you won’t worry about student control when the students treat them like other students. It is nice to see them come down here, and every day they want to give high fives with their knuckles. And again, Juliet, Charles, and Frank they love that. They come down here and they come jumping, wanting to see everybody, they can put a smile on your face. (Tim, interview transcription)

Tim explained that it was not on purpose that the three students with disabilities were separated from the rest of the class and were working by themselves. On this particular day of class the students with disabilities were seen in one area and did not change partners.

I had those three the last time they were in here. They only wanted to hit with each other. And that’s where they wanted to hit. I think it’s just a kind of habit, routine to do. That’s where they were before and that is where they went to hit. Charles still always goes to that far away table. But they don’t have to hit with each other any more. You can see it. Frank doesn’t want to play with Charles anymore. That was from last semester. That is where they wanted to go all the time. It was still table tennis. I had all three with a different aide. The aide at that time was Uri I think that is where they went and Uri may have taken them there the last time. It’s a bit of a routine… I probably didn’t notice that
and again it’s still of a habit coming from last semester when again Charles wanted to hit to each other. As for Samuel he is got to be with the aide. Again as you can see, they don’t want to play with each other anymore. Frank would rather be with someone else. Charles still goes back …routine. (Tim, stimulated recall transcription)

Tim encouraged all the students to work with different partners as much as possible, and explained the rationale behind this strategy. In his own words:

Otherwise they stay with the same person everyday. We’re going to hit everyday with everybody. I guess they don’t know everybody in the class. Just to know some of the other people. Just to hit with other people. I just don’t like people hitting with the same people everyday. They tend to chat a lot. If you hit with someone you don’t know you don’t have a whole lot to talk about. You’ve got to be doing what we are supposed to be working on. I like them to change and go with a different partner. (Tim, stimulated recall transcription)

Tim shared his views about modification of equipment and rules for students with disabilities to succeed. He noted:

Yes, right in a second. I thought of the possibility of a paddle. I think probably that would have helped. I think a bigger paddle would have helped a little bit. I am not sure we have one but that might be something we’re looking into. I think in this department down here we look through the books and say, hey that might work for the kid, and we get it. And we buy one or two just to try it. (Tim, interview transcription)

He continued:

Yes, we change the rules. Obviously if we play a real game she [student with disability] isn’t going to do very well, all because she cannot handle the paddle. She’s won a couple of games. Even though the rules are modified she’s winning games so that’s good. She is really doing beautiful serving. She probably got 9 out of 10 in there. No matter how I hit the ball straight to her, whether I bump it to give her time she has difficulty returning it. Now I think maybe a bigger paddle will do for her to cover more area because she is not too far from a lot of the hit. (Tim, interview transcription)

Explaining why he spent a great deal of time with Juliet in his class, Tim stated that it was because of his colleague who came in to help that day. He said:
I think that was the day Mr. Yost was there. Correct? I am almost sure. So with Mr. Yost in here I felt I can spend the whole day with her [student with disability] and let other students work on their games and getting their games done, trying to get their doubles and singles without having me pull them over and over. Mr. Yost was in there so I thought I could stay with Juliet all day on that one. Mr. Yost was kind of taking care of other things...testing. (Tim, stimulated recall transcription)

Tim expressed what he thought was the performance of the students with disabilities in the class. He noted:

This one [Juliet] I think she’s improved a lot from the first day that she couldn’t really serve the ball over the net. I think she can now, but I am not sure she has gotten to the next stage yet, hitting the ball back. Most of the things kind of seem out of control, but seems kind of that way. For the other students, for Frank I think he has improved a whole lot. Frank you can go 10-12 back and forth with him and with Charles. (Tim, interview transcription)

Preamble for John’s classes

With the exception of the soccer lessons that were held in the gymnasium, all other lessons were held outside. Class attendance was taken in the gymnasium before students moved to the designated place for the start of the lesson. Approximately 15 to 20 minutes elapsed between the taking of class attendance and students moving to the courts for the start of lessons.

Research Question 1. What were the overall class behaviors of two secondary GPE teachers toward students with severe disabilities in their GPE classes, and what were the frequency of occurrences and duration of specific teacher initiated behaviors toward these students in their inclusive classes?

Lesson 1

For Research Question 1 relative to John’s inclusion practices, Lesson 1 was held in the gymnasium. John started his lesson first by taking attendance. He called out the
names of students from a class register. After taking attendance the teacher prepared the minds of the students for the day’s lesson via set induction. The objective of the lesson was to teach throwing, heading, thigh trap and chest trap in soccer. John explained to the class the importance of these skills in soccer. John proceeded to demonstrate each of the skills using the appropriate technique. Three soccer balls were used for the class. After the demonstration students were put into groups and in their groups practiced the movement patterns of the skills. Students with and without disabilities worked together in their groups. John moved from one group to the other providing group attention and feedback. Occasionally, where a particular student had difficulty performing a skill he provided individual attention and feedback. In each group, he helped the students practice the skills by tossing the ball to them. In this lesson the target students with disabilities were both in the same group. Alice in executing a throw-in to John threw the ball far from his reach. John in a polite manner corrected Alice’s mistake through question and answer. All the students performed the same activities. John did not have much control over students’ behaviors in the class. For example, students with disabilities were off-task most of the time. At the end of the lesson, the teacher made the student retrieve all the equipment before they left.

In Lesson 1, no frequencies were recorded for modification, support, psychological safety, peer interaction diversion and physical interaction. John verbally communicated with Alice on nine occasions and with Tina six times. However, John spent more time (10.42-minutes) instructing Tina than Alice (9.12-minutes).
Lesson 2

In Lesson 2, John checked students’ attendance in the gymnasium using his class attendance and grade book. As soon as attendance checking was over John divided the class into four teams of four to five members. Teams 1 played against team 2, and team 3 played against team 4 in a small team game throughout the period. Two soccer balls were used. Color cones were used as goalposts. John supervised game play by spending time with both teams. As he moved around, he corrected students’ mistakes and techniques and provided explanations for inaccurate execution of skills. During the lesson an outsider interrupted the teacher. This outsider had come to collect some documents from the teacher and John had to attend to him. When time was up the teacher blew his whistle to signal the end of the lesson, and students walked away from the gymnasium.

In Lesson 2, no frequencies were recorded for modification, support, and peer interaction. John had no verbal communication with Tina but verbally communicated seven times with Alice. John was interrupted once in his teaching. John physically interacted with Alice two times. John spent 9.14-minutes instructing Tina and 1-minute instructing Alice.

Lesson 3

The content for Lesson 3 was tennis. Twenty-four tennis rackets and 30 tennis balls were available for the lesson. The lesson was held outside on the tennis courts. In all, there were five standard tennis courts. Class attendance was taken in the gymnasium before students moved out to the tennis courts for the lesson. It took about 15 to 20 minutes for students to get to the courts for the start of the lesson. For set induction, John discussed some of the basic rules of tennis with students. The objective of the lesson was
to teach students the fundamental forehand and backhand ground strokes. John demonstrated a couple of forehand ground strokes to the class. Students worked with their partners practicing the forehand ground strokes. John gave students two drills to help them practice the skill. Students had difficulty controlling their hits. The interest level of the students was low. Two of the students with disabilities were off-task and decided to leave the courts and went to sit outside the fence. When the teacher asked, “Why are you sitting down?” The students did not respond but joined the rest of the class at their leisure. John simply ignored them and did nothing to manage the students’ off-task behaviors. Tina and Alice seemed not enjoy the lesson. They could not hit the ball to their partners. While the lesson was in progress John’s daughter and her friend interrupted the teacher. John’s daughter walked onto the courts to talk her Dad. For closure, the teacher called the students together and made a few observations about their performance during the lesson.

In Lesson 3, no frequencies were recorded for modification, support, psychological safety, and peer interaction. John verbally communicated on 11 occasions with Alice and three times with Tina. John physically interacted with Alice once. John was interrupted once during his teaching. John spent the same amount of time (1.32 minutes) instructing Tina and Alice.

Lesson 4

In Lesson 4, as usual the roll call was done in the gymnasium and students walked leisurely to the courts for the start of the lesson. The same number of balls and rackets were used for this lesson as in the first lesson. Prior to the start of the day’s lesson, John spent some time talking about scoring in tennis and some tennis rules. The objective of
the lesson was for students to work on ball control, that is, getting the ball to their partners. Students worked in pairs hitting the ball back and forth to their partners. John moved from court to court giving individual attention and feedback. John spent some time with Tina (i.e., girl with severe disability) teaching her how to hold and swing the racket. John also interacted with Alice (i.e., girl with severe disability) and provided her with feedback. Twice in the lesson outsiders interrupted John. That is, two students walked on to the courts to have documents signed by the teacher. One of the students with disability made negative comments about his partner for which the teacher remarked, “let’s not make comments like that...names calling” At the end of the lesson the students returned all the equipment used to the designated place and returned to the inside of the building.

In Lesson 4, no frequencies were recorded for modification, support, psychological safety, and peer interaction. John verbally communicated with Alice on ten occasions and with Tina eight times. John physically interacted with Alice once. John spent 7.48 minutes instructing Alice and 1.55 minutes instructing Tina.

Lesson 5

In Lesson 5, the teacher took the class attendance as usual in the gymnasium, and walked together with the students to the tennis courts carrying the tennis balls. The tennis rackets were set up already on the courts. In this lesson, students had to take a short written quiz prior to their work on drills. Students separated out on the court as the teacher distributed the questions to the students. Alice and Tina seemed not to be interested in taking the quiz. Tina complained of a migraine, however, John still encouraged her to do the quiz. He helped her read the questions. Alice said she couldn’t
do the quiz because she was “dumb and stupid”. John replied, “No, you are not....” All the students with disabilities made complaints about the quiz and did not seem to be interested in taking the quiz. The teacher walked around encouraging them to do the quiz. After the students had taken the quiz, the teacher discussed the quiz with the whole class and supplied them with answers. Students were told to keep their papers in their folders in preparation for a test the following week. Students used the remaining time to work on their serve, forehand and backhand ground strokes. The teacher walked around to give individual attention to students. The students with disabilities were off-task most of the time, and the teacher seemed not to exert much control.

In Lesson 5, no frequencies were recorded for modification, support, peer interaction, diversion and physical interaction. John’s highest verbal communication behavior of 14 was toward Alice, and spent 3.45 minutes instructing her. John verbally communicated three times with Tina.

Lesson 6

In the sixth lesson, after the attendance had been taken, students walked to the tennis courts. The teacher started the lesson revising the previous strokes learned with students. John also taught students the scoring system in tennis. The objective of the lesson was to teach students doubles play in tennis. The objective was communicated to the students. Students were asked to pair up for doubles play. John gave teaching points to students as he moved from court to court. One of the students with disability left the class and was seen outside the tennis courts area. She came back to the class after 10 minutes and the teacher did not ask any questions.
In Lesson 6, no frequencies were recorded for modification, support, psychological safety, and diversion. John physically interacted with Alice four times. John verbally communicated with Alice 32 times and spent 2.15 minutes instructing Alice. John verbally communicated with Tina six times and spent 7.48 minutes instructing her.

Lesson 7

In Lesson 7, attendance was taken at the usual place and time. Students moved to the tennis courts for the start of the lesson. John spent some time talking about the names of the lines of the court and how to score. The objective of the lesson was to grade students’ performance on the serve. Students picked their rackets and tennis balls and with their partners practiced a couple of serves before the testing began. The teacher walked around to evaluate students as they served. Students were to serve correctly at least 3 out of 5 times. Alice and Tina were not able to meet the 3 out of 5 serves criterion. Most of the students were off-task and talked with one another more than they worked. Two students from outside the class who came to call another student in the class interrupted the teacher. Vera, one of the students with disabilities used some inappropriate language. The teacher said to the student concerned, “...is there a particular reason for using that particular language”.

In Lesson 7, no frequencies were recorded for modification, support, psychological safety and physical interaction. An outsider interrupted John’s lesson once. John verbally communicated with Alice on 14 occasions and spent 3.40 minutes instructing her. John on the other hand verbally communicated with Tina on seven occasions and spent 4.17 minutes instructing her.
Lesson 8

In Lesson 8, students were to play with each other in a rally. Teacher walked around to help students who had difficulty controlling the ball on the court. The teacher reprimanded one of the students with disability who threw the racket and called his friend by a nickname. Tina sat down on the court and would not take part in the activity for no apparent reason. John encouraged her to participate but she was reluctant.

In Lesson 8, no frequencies were recorded for modification, peer interaction, and diversion. John provided support for Tina once and physically interacted with Alice two times. John verbally communicated with Alice on 38 occasions and with Tina 14 times. John spent 3.05 minutes instructing Alice and 1.50 instructing Tina.

Lesson 9

The content for the Lesson 9 was flag football; eight footballs and 25 flags were used for the lesson. The objective of the lesson was to teach students four pass patterns. John demonstrated to the students how to hold the football and how to throw. After a few demonstrations, students were divided into groups and warmed up their arms by simply throwing to one another. After some time, the teacher reassembled the students and demonstrated with students four pass patterns. Students broke up into groups of 4 with quarterbacks and receivers to practice the different pass patterns. Different drills were organized to help students learn the skills. Teacher interacted with students by providing feedback and support. Alice and Tina seemed to enjoy the lesson and did a good job on passing the football. Both Alice and Tina were volunteered to demonstrate one of the pass patterns. Rosaline, a girl with disabilities, walked out of the class and never came back for the rest of the lesson.
In Lesson 9, no frequencies were recorded for modification, psychological safety, peer interaction, or diversion. John supported Tina three times during the lesson and Alice once. John verbally communicated with Alice on nine occasions and with Tina eight times. John spent 8.45 minutes instructing Tina and 1.08 minutes instructing Alice.

Table 4.3 shows the frequency distribution for John’s behaviors by lessons. In each lesson the frequency of John’s behaviors toward the two target students, Tina and Alice are recorded. The table shows AIPE codes for the teacher’s behaviors and the individual lessons observed.
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</table>

**Note**: 25 minutes per lesson

**Note**: AIPE CODE = Teacher's Behaviors

**Table 4.3**: Frequency Distribution of John's Behaviors Across Lessons Toward Tina and Alice
Table 4.4 shows time distribution of John’s behaviors (instruction and no interaction) across lessons toward Tina and Alice. The figures show the amount of time in minutes spent by the teacher, in each lesson, instructing the target students individually, as well as time when there was no interaction between the teacher and the individual target student. The sum of the “instruction” time and the “no interaction” time is an approximation of total time. This excludes time spent by the teacher for set induction and interaction with the class as a whole.
<table>
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<th>Soccer 2</th>
<th>Tennis 3</th>
<th>Tennis 4</th>
<th>Tennis 5</th>
<th>Tennis 6</th>
<th>Tennis 7</th>
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<th>Flagfootball</th>
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<td>10.42 9.12 9.14 1 1.32 1.32 1.55 7.48 0.53 3.45 7.48 2.15 4.17 3.4 1.5 3.05 8.45 1.08</td>
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<tr>
<td>No interaction</td>
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</tbody>
</table>

Note 25 minutes per lesson

Table 4.4: Time (Minutes) Distribution of John’s Behaviors Across Lessons Toward Tina and Alice
Research Question 2. What were the overall views of two secondary physical education teachers toward inclusion?

Positive Views (John)

John held a positive view towards the inclusion of students into the general physical education class. He stated, “I think in the normal classroom, for the most part students with disabilities should be included”. John’s positive view towards inclusion is based on the belief that he has held on for a long time. He remarked:

...because all along I’ve thought all students have an opportunity and that they all have an ability because we try to work from where they are and try to get them to improve. (John, interview transcription)

He, however, made the comment that sometimes inclusion is difficult. He commented:

But some students with numbers that we have it wouldn’t work for them just because we can’t give them the attention that they need. I think some students in inclusion will be lost in a big physical education class and they really need more attention. And if we have 30 in a class you can’t get that one on one. If you had an aide, you can get that aide to work with the individual. (John, interview transcription)

John further clarified his point by making this observation.

Well, I can see that because we do have the local county [Board of Mental Retardation Program], the local county has a program here. It has 10-12 students who are wheelchair bound and can’t feed themselves or do anything. If you were to try to put them in regular PE class, there is no way. Because even if an aide...the thing that we do, we have to adapt the whole class to that one individual and that will leave out the other 30. So just for adaptation you don’t want to adapt to one when you hold the others back (John, interview transcription)

From John’s view, his students without disabilities were helpful to their peers with disabilities. They accepted their peers with disabilities; helping them and making them
part of the class. John pointed out the kind of interactions and benefits derived by students who were included in the class:

I think socially. I have kids going out of their way to be helpful and kind to them [students with disabilities] and this class has especially done a good job of that. Socially, I think kids from inclusion classes benefit because they just don’t see the same kids they are with; they see other kids in the class as well (John, interview transcription).

He continued:

Physically, this class is one of the best as far as physical abilities is concerned. They [students with disabilities] kind of fit well with this group and it doesn’t always happen that way. If you have a group that is really good athletes and they’ve really got good skills it is hard for the inclusion kids. It is hard for them to come up with that. This group is especially molded into small class so that has helped (John, interview transcription)

John, however, commented, “there is other times when that doesn’t necessarily occur”.

Inclusion Practices

To John, not being able to give attention and quality time to students with disabilities, especially with a large class, is a negative experience. He mentioned:

The negative is the fact that a lot of times you just don’t have time with a large class to give to kids who are in inclusion. They need that extra help from you and you really don’t have the time because you have 25 or 30 students and you might only have one person and can’t devote all your time to that one person and that’s the negative part of it. (John, interview transcription)

In the case of John, he had between 3 to 6 students with disabilities in all the classes that he taught. None of the classes had a teacher’s aide that attended class with these students. The local county Board of MRDD provided services outside the general physical
education class to the school. John shared valuable information about how the IEP process operates at his school. He stated:

We get a copy of each student’s IEP from his or her tutor or whomever is in charge of the particular person. The students in this class have Mrs. Oak. They are in a kind of contained class for a couple of periods a day and they are included in some classes like math or science. She is their teacher. She is in charge of their IEP, contacts their parents, and confers with their parents. They send the IEPs to us. I’ve in the past, but with the 8th period class, most of the time they have the IEP meetings at the time when I am in class. When I was in the Junior High we were always included, they will invite us to the IEP meetings. (John, interview transcription)

John described how he handled students’ IEPs:

Generally, it wasn’t anything that we needed to know in physical education but it was nice to know what they were capable of doing in the other class. But we [PE staff] do receive and IEP for any of the student that have done IEP. They send the copy down to us, we read through it, and we sign that we’ve read and if we had any questions we send them. That way that let us know that they do have an IEP and I’ve got their IEP on file. I can look at it. This is the student. Does he comprehend reading? Is this IEP one of the areas they need? (John, interview transcription)

John’s view was that his teaching style and strategies have not been affected by the practice of inclusion. He thinks the only difference is the extra attention and time he gives to the students with disability to the neglect of the other students. His teaching style was mainly direct instruction. He said:

Not really! I still kind of go over things at the beginning of the class and the only difference being that I have always tried to pay more attention to them [students with disabilities] to help them and maybe what I’ve done is to ignore some of the other kids more. And, but in the past I’ve had a student who was in the wheelchair and was in class. He couldn’t do a whole lot but we worked with him. I had a student who came from study hall and worked with him for a whole semester and gave him the attention I couldn’t give him...just a student who was willing to work with that person. And I said here is what I want you to do today. I want you to toss the ball to him. Give him the use of the hand often not used. I want him to have the ability to use that hand so she worked with him and had him throw back and forth. I didn’t have time to spend with him like that. (John, interview transcription)
According to John, the biggest change in his working life as a physical educator as a consequence of teaching students with disabilities is the life of understanding and observing. He explained:

Well, I think the biggest change is, as you get older you get wiser. You learn what works and what doesn’t. Probably about 20 years ago I might not have done some of the things I do today just because I’ve learned that doesn’t work. And I guess you tend to be a little more observant maybe a little more lenient towards the students and what they are trying to accomplish and maybe not try to require so much because of the learning experience. It takes time, and that is for all students, I think. (John, interview transcription)

John agreed that students with disabilities in the class sometimes need some modification of the rules, equipment, and other things in order to be successful. He stated:

When we had that student in wheelchair, we had him go out, and when we did football, most times he was the quarterback. He can throw a football to them. They were not allowed to rush him. There were times that maybe he couldn’t do what we were doing but he could officiate. He can stand on the sideline by officiating that part of the game and calling fouls or whatever. (John, interview transcription)

He also explained the kind of modifications or accommodations made for written tests involving students with disabilities.

I do have them take the test like anybody else so they are part of the class. I have them [students with disabilities] try the best they can, do what they can do on the test, and then I collect them back. I’ll collect their test and send them back to their teacher, to their tutor. If they fail the test, I have them take the test again. They work with their teacher and their teacher sends it back to me to grade it. It is still my grade. Some students need some modification. Most of them when I send the test out, after the teacher has read it to them or has reworded it, they have the answer. They [the teachers] help them come up with the right answer. Because I am interested in what the right answer is instead of saying you got it wrong. (John, interview transcription)

Challenges (John)
John’s view was that for some students with severe disabilities, including them in general physical education class would be difficult if not impossible. He cited the example of 10-12 students who use wheelchairs and were in the local county Board of MRDD program. According to John, students with severe disabilities lack social and daily skills and he couldn’t imagine how these students could successfully be included in a general physical education class even with the service of an aide. As John pointed out:

Most of other class I’ve got 20-30 kids. I hate the class that has 37 kids in it. Imagine that you have 37 kids with 4 -5 inclusion kids in there, it will be a nightmare to even try to work with them. So to implement any idea, the inclusion kids have to be in smaller group. (John, interview transcription)

Furthermore, John suggested that the problem he has teaching inclusive classes is with students with disabilities who don’t want to do anything. John emphasized:

...as long as they are working and trying I don’t have a problem. The ones that don’t just want to do anything are the ones that I have problems with most of the time when they are in physical education class. If the student is making an effort then we try to go from there. Where are they starting and are they moving forward? If they are staying at the same place, then they are not trying. But as long as the student is trying and shows me an effort... they may not have the skills but they may gain farther in just a little bit than somebody who is an athlete that does everything, and that is more important. (John, interview transcription)

On the issue of dealing with students with disabilities, John stressed the need to consider class sizes and to “have a second person that could work with those students with disabilities. He stated:

Students with disabilities need to be included into the regular classroom like everybody else. It helps them socially. But most of the time they are in another classroom. Some of the student we get might only be included in physical education. They might not be in math or science so that gets them with other kids. The only thing is that when you have inclusion kids the class has to be small so you can have time to deal with them. Although you may have one inclusion student, with 30 others
you can’t spend all your time with that one student and then not doing anything at all with the 29. (John, interview transcription)

During one of the class sessions that John taught, one of the students with disabilities left the field. When the teacher was asked to comment on the behavior of the student, he said:

Emily got mad because somebody was going to be her partner and that person went to someone else. She got mad and walked off the field, all because she didn’t have a partner to throw with...it is a behavioral problem. With Emily that probably occurs once or twice in a week. That is why she is in the program. She is in the behavioral program. (John, stimulated recall transcription)

John explained how he handled the situation when it occurred. He stated:

Well, you can’t leave the classroom, you can’t leave the rest the of the kids out there. What I did was went inside to talk to her cooperating teacher [special education teacher], the one that is in charge of her to let her know she walked out of class...I followed up. (John, stimulated recall transcription)

He continued:

This is a problem associated with her disability. Her lack of wanting to do what she is supposed to do. She is in there because she doesn’t want to listen to what she is supposed to do. She has a tough time in the regular classroom. She has a severe behavioral problem. They have a teacher who works with them all day long and follows them into their classes. (John, stimulated recall transcription)

Another incident occurred where two students refused to participate in class activities. One of them had a disability the other did not. John explained the conduct of the two students.

They got tired of participating in class. Emily said it was too hot. Emily was sitting because she doesn’t want to play. S—is not in the program [special education] Although she is not in the program she is one of those kids who is not going to be successful in school. She doesn’t like school. It’s typical of the kids who like to dress in black all the time. She wants to withdraw from everybody else. At the beginning of the year, I had a hard time getting her to come to class and I talked to her mother and her mother was frustrated and we finally got her to come. Just trying to get her through so she can get credit. (John, stimulated recall transcription)
CHAPTER 5

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this research was to research two general physical education teachers at the secondary level and determine their views and practices relative to inclusion. Moreover, this study sought to describe the class behaviors of two secondary physical education teachers toward students within inclusive classes.

Two effective secondary physical education teachers from suburban school districts in Ohio participated in this study. Both quantitative and qualitative data collection techniques were used to address the research questions. Quantitatively, systematic observation strategies were used to describe and analyze interaction patterns of physical education teachers in inclusive classes. Each participant was observed and videotaped during nine physical education lessons for 25-35 minutes. Lessons were coded using the AIPE-Teacher Version (Hodge et al., 2000). In addition, participants were interviewed to share their experiences and views about inclusion. The participants reviewed two clips of videotaped events of their class sessions selected by the researcher which were played for one or two minutes and commented upon by the teacher. The researcher kept an account of lesson events by keeping a journal.

Data collected using the Analysis of Inclusion Practices in Physical Education (AIPE)-Teacher Version instrument (Hodge et al., 2000) were presented as frequencies or as time
duration. Interobserver agreement for this study was between 80% and 90% for all the categories of behaviors. Interviews were audio taped and transcribed, and the transcriptions were summarized into themes and categories.

Discussion

Research Question 1. What were the overall class behaviors of two secondary physical education teachers toward students with disabilities in general physical education classes, what are the frequency of occurrences and duration for specific teacher initiated behaviors towards students in their classes?

Direct comparisons to published research in this area are not possible at this time because no studies quantifying teachers’ inclusion behaviors have been conducted to our knowledge. The strength of the current study lies in the fact that it is the first study of its kind to quantify teachers’ inclusion practices. However, recent research (Place & Hodge, 2001) has been conducted that quantify students’ behaviors in terms of inclusion. Moreover, the current study was important to conduct because research on inclusive classroom is extremely sparse (Pugach, 1995) and is needed to provide an empirical base for educational practices. Furthermore, there is little research that critically examines the inclusion of students with severe disabilities in GPE contexts (Block & Zeman, 1996; Murata & Jansma, 1997; Vogler, DePaepe, & Martinek, 1990; Vogler et al., 2000). This study therefore adds to the research base on inclusion practice.

The overall class behaviors of the two secondary physical education teachers toward students with disabilities in general physical education classes revealed that these teachers moved briskly in their classes, interacted with the students with severe disabilities and provided individual attention to them as they practiced their skills. Both
teachers communicated verbally with the students with severe disabilities at a high frequency by way of feedback, statements and comments. In contrast, both teachers had a low frequency for modification, support, and physical interaction with these same students.

In the current study both teachers actively supervised their students. Both teachers moved briskly in the classes, interacted with the students and provided individual attention to them as they practiced their skills or drills. Tim was active and quite enthusiastic about his teaching. John was not as active or enthusiastic. Tim's enthusiasm was expressed not only in his verbal interactions with the students with and without disabilities in his class, but also in the way Tim, in this case played table tennis with the students during their skill practice sessions. Students in Tim's classes were generally on task during class sessions and gave Tim their attention during demonstrations and explanations. He moved about a lot giving individual attention and feedback. Both teachers regularly made use of feedback. Feedback was more often provided to individual members of the class than the class as a whole. Both teachers provided direct and descriptive statements but they also asked questions of their students. Both teachers made very little or virtually no adaptations in terms of equipment. Tim modified the rules during lessons or class activities. For John, modifications of rules or equipment were almost nonexistent. A possible reason for the absence of modification of rules and equipment may be attributed to the types of disabilities of the students in his class. The target students for the interaction of the teacher had severe emotional disorder. Although Tim expressed confidence about his instructional capabilities within the context of his present assignments, he appeared to have mixed feelings about the materials he would
use for varied students with specific disabilities in his class. There was enough equipment for the maximum participation students for both teachers.

From observation, the classes taught by both teachers were manageable with regard to class size. Sherrill (1998) noted that class sizes larger than 30 when working with students with disabilities builds in defeat, contribute to teacher burn out, and intensify discipline problems. Without doubt, large class is a barrier to individualizing physical education instruction (Sherrill et al., 1994). Large class size intensifies discipline problems. A possible explanation for John’s discipline problems in his class could be stem from the type of disability groups in his class. Two of the students in his class had severe emotional disorders.

The frequency of teachers’ behaviors for modification, support, and physical interaction raise the questions as to: “Whether or not inclusion is actually being practiced effectively in GPE contexts?” or “Whether or not GPE teachers are adequately prepared for inclusive practice?” Indications in the current study from observing the class sessions pointed out that the teachers did not draft lesson plans for modifying or accommodating the needs, interests, and abilities of these students with severe disabilities to facilitate their engagement in class activities. Solomon and Lee (1991) however reported that experienced teachers had superior knowledge and a wide range of teaching strategies for teaching students with disabilities. They generated plans ahead of time based on the actions and abilities of students with disabilities. It takes thoughtful planning and implementation to make inclusion of students with disabilities into the general physical education classroom a beneficial experience for students both with and without disabilities (Block, Zeman, & Henning, in press; Eichstaedt & Lavay, 1992; Snell &
Eichner, 1989; Stainback & Stainback, 1990). On the contrary, any program of inclusion that lacks adequate planning, and students are “dumped” into general physical education without support, can become a negative experience for students with and without disabilities as well as the teachers (Grosse, 1991; Lavay & DePaepe, 1987; Morreau & Eichstaedt, 1983). The general physical educator should provide a model of appropriate interaction with the student with disability. It is reasonable to conclude, from the observations and interviews, that the teachers in this study had a positive attitude toward the philosophy of inclusion but were far away from implementing effective inclusive practice.

In the current study, these two teachers communicated verbally with those students with severe disabilities, and emphasized cooperative interaction between students with and without disabilities during game and/or physical activities or during skill testing sessions. Tim’s highest frequency across lessons was 205 and John’s 38. To a large extent, there was the tendency for teachers to increase their verbal communication behaviors as they spent more time providing instruction to the student with disability. One potential reason for the variation in behavior in this study was the varying contextual factors including content, class duration, class size and tasks. The lesson content for Tim was table tennis throughout the period of observation. John’s content varied from soccer, tennis, and flag football (see Table 4.3). It appeared that the nature of sport was a factor that contributed to teacher’s verbal communication. The frequency for both teachers occurred in an individual sport context, that is, table tennis (Tim) and tennis (John). The nature of the sport provided opportunity for the teacher to interact with students on individual basis either in a game or skill practice sessions.
The number of times that teachers make positive comments, statements, and show high rates of positive interactions is one of the criteria for teachers to determine whether their classes have warm, positive climate (Sherrill, 1998). Positive climate means different things to different people. Positive climate, to some people, means teacher-student interactions that are more positive than negative or corrective, more skill than behavior oriented, and more specific than general in nature (Vogler, van der Mars, Darst, & Cusimano, 1990). The climate in the current study tended to be positive for both Tim and John’s classes.

From a pedagogical perspective, assessment is an act that occurs at the beginning, during and at the end of the instructional process. It is an integral part of the teaching-learning process. By assessment the teacher is able to identify the strengths and weaknesses of the student to guide lesson planning and day-to-day instruction (Sherrill, 1998). Tim’s approach to assessment was to incorporate skill testing into his teaching. Tim put much emphasis on skill assessment. Students were required to be tested on particular skills, according to the level of their choice, outlined in the performance objective sheet. During the period of observation, only students without disabilities were tested in Tim’s class. Perhaps Tim did not insist on students with disabilities having a skill test because he thought they might not be able to meet the test criteria. One would have thought that for the students with disabilities the teacher could have adapted the items and the environment to ensure success. The fact that no student with disability was skill tested therefore raises the question as to how the students with disabilities were graded as members of the class, and what grades did they receive? Unfortunately, the
researcher was not able to discuss the assessment issue with Tim. John, however, conducted a short quiz to test students' understanding of the rules of tennis.

One cannot overemphasize the importance of personnel and resources for a successful inclusion program (Vogler et al., 2000). The provision of supports such as specialized equipment, special instruction, and personnel such as volunteers, teacher aides, education specialists are necessary for a successful inclusion (Block & Krebs, 1992; Rainforth, York, & Macdonald, 1992; Stainback & Stainback, 1990; Vogler et al., 2000). Dunn et al. (1980) noted that such support is rarely given to general physical educators, and in some cases, general physical educators do not even request support. According to Storey (1993), although integration enjoys consensus, its definition has been elusive. Whether integration or inclusion, both concepts mean different things to different people. The importance of educating individuals in inclusive settings cannot be overemphasized. The inclusion philosophy has the potential to have a positive impact on students with and without disabilities and their teachers. However, these positive outcomes are not being realized for some students placed in inclusive settings. There were few resources to assist the teachers who were studied despite the fact that these teachers taught in schools with ample modern equipment and facilities. No adaptive equipment was available. Proper support services in the form of personnel and adapted equipment and specialized instruction are needed and critical in order to facilitate successfully inclusion in secondary schools (Block & Krebs, 1992; Stainback & Stainback, 1990). Perhaps the low frequencies of occurrence for modification, support, and peer interaction could be attributed to the lack of personnel and resources or inadequate teacher preparation.
School administrators need to be more aware and supportive of the needs of the general physical educators who are working with students with disabilities.

Although it was not part of the study to measure teacher effectiveness, some thoughts and reflections were made concerning the effectiveness of the two teachers in the present study. Teaching effectiveness refers to teaching that results in intended learning (Rink, 1996). Some indicators of effective teaching based on research (Siedentop, 1983) whether in a general or an inclusive setting are, (a) the development of a warm, positive climate, (b) an appropriate matching of content to student abilities, (c) a high percentage of time devoted to lesson objectives, (d) high rates of on-task behaviors and (e) the use of strategies that contribute to on-task behavior but are not incompatible with a warm, positive climate (Sherrill, 1998). From observation, the last three indicators were not characteristics of John's class sessions. The students with disabilities in his class frequently demonstrated off-task behaviors. It is unknown whether or not such off-task behaviors were attributable to their disabilities. On occasion by totally overlooking such occurrences in the class, John regularly failed to implement effective behavior management strategies. For example, from observation, Tina and Alice at one time or the other refused to participate in class activities while the class was in session. John simply questioned them and did not pursue any further actions. It appeared that John had more discipline problems with students with disabilities in his classes than Tim.

**Research Question 2.** What were the overall views of two GPE teachers toward inclusion?

The overall views of these two secondary GPE teachers toward inclusion revealed that both teachers expressed positive views about including students with disabilities in their
GPE classes, and reiterated some benefits of inclusion for both students with and without disabilities. However, they both believed that some students with severe disabilities couldn’t be included in the GPE classes. The teachers felt ill prepared to handle situations that occurred in inclusive physical education class with student who possessed severe disabilities. Both teachers in this study expressed the view that including students with disabilities in their classes did not affect their teaching style and strategies.

Although, not empirically tested in the current study, the theories of normalization and adaptation did not appear operational in these two teachers’ GPE classes; in terms, of adapting instruction to facilitate active and meaningful participation by the students with severe disabilities and their typically developing classmates. Instead the theories take cognizance of individuals with disabilities and provide them with access to the same environment and opportunities as their peers without disabilities. Normalization theory does not mean making such individuals normal. In the current study, the students with disabilities had access to the same environment and opportunities as their peers without disabilities. But to what extent were the learning experiences beneficial to the students with disabilities? Normalization requires that adapting be a process applied to all students in the class, not just those with disabilities. Adaptation theory posits that professionals who are knowledgeable about variables are to match abilities with content and teaching style to create optimal learning opportunities. The expressed views by both teachers that including students with disabilities in their classes did not affect their teaching style and strategies therefore leave much to be desired. Perhaps participants thought it was a good thing to teach the same way they taught if there were no students with disabilities in their classes. In one sense this could mean that participants were “disability blind” (i.e.,
teacher's tendency to ignore the fact that students with severe disabilities may need supportive services and/or modified instruction and equipment) or possibly these teachers although in favor of the concept and practice of inclusion, did not have proper awareness and/or training to know how to engage in effective inclusion practice.

Different teachers have different attitudes, beliefs and views about including students with disabilities. While some feel comfortable others feel threatened (Minner & Knutson, 1982; Rizzo & Vispoel, 1991; Rizzo & Wright, 1988; Santomier, 1985). One of the most important factors contributing to successful physical education programs is the attitude of physical educators toward teaching students with disabilities (Hodge & Jansma, 1998; 1999; Rizzo & Kowalski, 1996; Rizzo & Vispoel, 1991). Whether or not these attitudes would be favorable depend on some characteristics or background of the teacher (Rizzo & Kowalski, 1996). For example, the teacher's educational background and experience with students with disability (Marston & Leslie, 1983; Rizzo & Kowalski, 1996; Rizzo & Vispoel, 1991) contribute to successful physical education programs. Both teachers, in this study, expressed positive views about including students with disabilities in their general physical education class. However, they both believed that for some students with severe or profound disabilities including them in the general physical education class would be very difficult. This belief compares consistently with the finding that students with mild disabilities are viewed more favorably than students with more severe disabilities (Aloia, Knutson, Minner, & Von Seggern, 1980; Hodge & Jansma, 1990; Rizzo, 1984; Rizzo & Vispoel, 1991; Rizzo & Wright, 1987; Tripp, 1988). One concern expressed by the teachers in the current study was that they felt students with disabilities needed more time and they required more attention. The question of insufficient class
allotted time has been a concern general education (Olson, Chalmers, & Hoover, 1997) as well as physical education. In the current study, John felt that not being able to give attention and quality of time to students with disabilities was a negative experience for him.

The finding from this study that both teachers felt ill prepared to handle situations that occurred in inclusive physical education class with students with severe disabilities is consistent with that of LaMaster et al. (1998) and Lienert et al. (2001). This raises an issue about the kind of PETE programs that prepares physical educators for teaching in an inclusive setting as well as the question as to what is best for students. The one course typically offered in adapted physical education has been found not to adequately prepare people to teach or work in inclusive settings (Kowalski & Rizzo, 1996). How teachers are prepared, and what happens during their preparation programs with regard to teaching individuals with disabilities are very important questions to be addressed. Rizzo and Kirkendall (1995) found academic preparation (i.e. course work) relative to individuals with disabilities to significantly correlate with perceived competence. In the current study, Tim and John expressed the view that in order to do a better job there was the need for adequate preparation and training. This view stemmed not from the conditions under which both teachers worked but rather from lack of adequate preparation.

Furthermore in the current study, the teaching style for both teachers was mainly characterized by direct instruction involving command and practice. The command style is usually prescribed for students with severe disabilities such as severe mental retardation, severe learning disabilities, and severe emotional disturbance (Sherrill, 1998). Direct instruction involves careful, systematic instruction and presentation of
materials. It involves time devoted to active instruction, breaking complex skills into simple skills, providing immediate feedback, instructing small groups and using curricular materials that are relevant to the curriculum (Carnine, 1991; Harrison, Blakemore, Buck, & Pellet, 1996; Siedentop, Mand, Taggart, 1986). As expected most of the interactions by the teachers with the students were individualized in nature and occasionally the teachers offered some comments to the entire class or group of students. The nature of Tim and John's verbal communication during students' practice was content related and was in the form of a prompt, feedback, praise and encouragement statement.

In addition to the rationale for inclusion, there are some specific benefits that inclusion programs can make available for both students with and without disabilities. For example, in inclusive GPE classes, students without disabilities get the opportunity to work alongside their peers who are not as skilled in the motor domain, they get more opportunities to interact with their peers with disabilities and by so doing learn to appreciate differences between themselves and their peers with disabilities (Block, 1994). Other benefits may include the following (a) learning social skills in inclusive, more natural environments, (b) the opportunity to learn appropriate social skills, (c) the availability of role models, and (d) the improvements of attitudes (Block, 1994; Murata et al., 2000; Sherrill et al., 1994; Slininger et al., 2000). In this study, both Tim and John reiterated the benefits of inclusion for both students with and without disabilities (Place & Hodge, 2001). For example, students with disabilities get the opportunity to work with and make friends with peers without disabilities. Likewise, students without disabilities also learn to accept, understand and tolerate the individual differences of students with
disabilities in their classes (Murata et al., 2000). Both teachers encouraged their students with and without disabilities to work with different partners as much as possible.

Conclusions

Based on the findings of this study, the following conclusions were drawn.

1. The study demonstrated that participants did not feel they have adequate training to teach students with severe disabilities in the general physical education classes.

2. Although, the teachers in the current study expressed positive views about the concept of inclusion, not much was done in practical terms to accommodate or meet the psychomotor needs, interests, and abilities of the students with severe disabilities in their classes.

3. Across the lessons the most frequent teacher behavior exhibited by both teachers toward students with severe disabilities were occasions of verbal communication, which were in the form of feedback, praise, and prompts.

4. General physical education teachers who are considered effective teachers may not necessarily demonstrate effective inclusion practices.

5. Teachers' views about inclusion may differ based on the degree of severity/type of student disabilities. For example, Goc Karp (1990) found that students with learning disabilities were perceived more favorably than those with physical disabilities.

Implications and Recommendations

As a result of this study, implications and recommendations are suggested for PETE educators and administrators to enhance the practice of inclusion in secondary schools. There should be continuous preservice and inservice education focusing on attitudes that enables all teachers to work effectively with students who may have disabilities (Folsom-
Meek et al., 2000; Hodge & Jansma, 1998, 1999; Murata et al., 1994) as well as helping teachers to plan and operate in ways that could maximize student engagement in their classes. The literature points out the importance of teachers’ attitude in successful inclusion (Heikinaho-Johansson & Sherrill, 1994; Sherrill, 1998). The question is to find some pragmatic ways of enhancing the attitudes of physical educators toward teaching students with disabilities. Several strategies for influencing the attitude of teachers have been suggested and discussed in the literature (Jansma & Shultz, 1982; Patrick, 1987; Rizzo & Vispoel, 1992; Rowe & Stutts, 1987; Stewart, 1988, 1991). One of the most effective strategies to date having the potential of wielding much influence is to provide physical educators with appropriate coursework and experience (Folsom-Meek et al., 1999; Kowalski & Rizzo, 1996). Effective training contributes to higher perceived competence and, in turn positive attitudes (Folsom-Meek et al., 1999; Kowalski & Rizzo, 1996).

Physical education teachers should modify physical education activities and create a learning environment that is conducive for interaction for both students with and without disabilities (Place & Hodge, 2001). For example, teacher-training programs should ensure that their trainees are exposed to various curricular and instructional strategies to enhance inclusion (e.g. peer tutoring and teaching models, reciprocal modeling, partner activities, cooperative or new games model, games design model, adventure activities) (Murata et al., 2000). If teachers are confident that they have received adequate and relevant knowledge and are well equipped, they may be more receptive to inclusion efforts.
Future Research

As a result of the findings in this study, the following are recommended for future research. Future research is needed to expand our knowledge of inclusive practices, particularly at the secondary level. Because the implementation of inclusion at the secondary level may be quite different from that at the elementary levels, there is the need for studies that investigate inclusive practices in secondary level settings. A comparative study needs to be conducted to compare the inclusion practices of effective elementary physical education teachers and secondary physical education teachers since there is a general perception that structuring inclusive experiences is more difficult in the secondary schools. The study may involve effective teachers within the same teaching context in terms of disability types and curriculum.

Research needs to be conducted to examine the relationship between gender and interactive teacher behaviors in inclusive GPE settings. Gender is among the many variables identified as influencing teacher attitudes to teaching individuals with disabilities. It is therefore important to understand the relationship between gender and interactive teaching behaviors in an inclusive setting.

A study needs to be conducted to describe vividly the impact of inclusion on how classes are conducted and how teachers are responding to the demands and opportunities that inclusion provides. The study should employ both quantitative and qualitative paradigms using various categories of teachers (APE specialists, general physical education teachers, experienced and novice teachers). In addition, the study should not only focus on teacher behaviors but also incorporate student outcomes.
LIST OF REFERENCES


<table>
<thead>
<tr>
<th>Class</th>
<th>Grade Level(s) in class</th>
<th>Total # of students</th>
<th># of categorized students</th>
<th>Variety of labels for categorized students</th>
<th># of students with physical education I.E.P.</th>
<th>Number of aides that attend class with students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Full-time Part-time</td>
</tr>
</tbody>
</table>
APPENDIX B

DEMOGRAPHIC INFORMATION FORM B
Form B. Questionnaire: Please fill out and return in the self addressed envelope.

1. How many classes/courses have you taken in adapted physical education?

<table>
<thead>
<tr>
<th>Type</th>
<th>Yes</th>
<th>No</th>
<th>How Many</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshops</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inservices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Conferences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Do you have the services of an adapted physical education specialist?
   YES ____ (If yes, fill in the table below by checking an answer in each column)
   NO ____

<table>
<thead>
<tr>
<th>Frequency of visits</th>
<th>Services provided by which source?</th>
<th>Number of specialists provided by services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>Franklin County</td>
<td></td>
</tr>
<tr>
<td>Weekly</td>
<td>School District</td>
<td></td>
</tr>
<tr>
<td>Bi-monthly</td>
<td>School</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td>Private Industry</td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td>Other, please specify:</td>
<td></td>
</tr>
</tbody>
</table>

3. What types of responsibilities do the adapted physical education specialist fulfill?

<table>
<thead>
<tr>
<th>Responsibilities/Jobs</th>
<th>YES</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teach physical education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consult with teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.E.P. Formulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Is there a county unit in your school? (Special education provided by Franklin County?)
   YES _________ NO _________

5. Do you have to carry out any of the following duties in conjunction with students with disabilities in your classes?
   - Physically lift
   - Bathroom duties
   - Changing catheters
   - Mucous suctioning
   - Other, please specify

122
6. Please list any other issues concerning inclusion that you would like to discuss during your interview time.
APPENDIX C

ANALYSIS ON INCLUSION PRACTICES IN GPE (TEACHER VERSION)
This instrument is designed to measure frequency of occurrence of specific teacher inclusive 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 (Sherrill, 1998).

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

**Social inclusion** refers to the nature and occurrence of personal interactions among and between peers with and without disabilities who are classmates (Sherrill, 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.)
## DEMOGRAPHIC DATA SHEET

Teacher ____________________  School ____________________  
Grade _____________________  Date ________________________  
Activity ____________________  Start ___________ Stop ___________  
Observer ____________________

Description of Students with Disabilities (type/severity)  
____________________________________________________________________  
____________________________________________________________________  
____________________________________________________________________

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

### Summary of Data: Appropriate Teacher Behaviors

<table>
<thead>
<tr>
<th>Code</th>
<th>Tally</th>
<th>% Freq</th>
<th>Code</th>
<th>Tally</th>
<th>% Freq</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>P</td>
<td></td>
<td>S</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>PS</td>
<td>PI</td>
<td></td>
<td>I</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Target student's name ____________________

Specific comments  
____________________________________________________________________  
____________________________________________________________________  
____________________________________________________________________
**AIPE – TEACHER VERSION**

**OCCURRENCE OF SPECIFIC TEACHER INITIATED BEHAVIORS**

**SCORING:** Teacher initiated behavior emitted during observation session is coded using the appropriate behavioral category label. For example, if the teacher provides verbal instructions to a student with disability at any time during the observation session, the V (verbally communicates) is written in the square or tallied. In contrast, if the teacher uses a sarcasm with the student with a disability, the V is written or tallied and circled.

<table>
<thead>
<tr>
<th>Teacher Behaviors</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modification</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td></td>
</tr>
<tr>
<td>Psychological Safety</td>
<td></td>
</tr>
<tr>
<td>Peer Interaction</td>
<td></td>
</tr>
<tr>
<td>Verbal Communication</td>
<td></td>
</tr>
<tr>
<td>Instruction</td>
<td></td>
</tr>
<tr>
<td>Diversion</td>
<td></td>
</tr>
<tr>
<td>Physical Interaction</td>
<td></td>
</tr>
<tr>
<td>No interaction</td>
<td></td>
</tr>
</tbody>
</table>

- Modification: t---tallies = ----- 
- Support: t---tallies = ----- 
- Psychological Safety: t---tallies = ----- 
- Physical Interaction: t---tallies = ----- 
- Diversion: t---tallies = ----- 
- Verbal Communication: t---tallies = ----- 
- Peer Interaction: t---tallies = ----- 
- No interaction: min = ----- 
- Instruction: min = ----- 

127
**Key Behaviors**

**Modification** (M). Teacher changes rules, equipment and/or activities to engage students with disabilities in class participation.

**Support** (S). Teacher assists student with disability. This includes physical support related to child’s disability, providing supportive equipment, and asking support personnel to assist student.

**Psychological safety** (PS). Teacher initiates a psychologically safe interaction for lessons. For example, stops or desists students from making negative comments toward their peers with disabilities.

**Peer Interaction** (P). Teacher calls students with or without disabilities to interact during game play and/or physical activities or testing sessions.

**Verbal communication** (V). Teacher makes statements, comments and provides feedbacks specifically to student(s) with disability.

**Physical interaction** (PI). Teacher physically interacts with student(s) with disability. This includes social interactions such as touching, shaking hands, or giving high fives.

**Instruction** (I). Teacher demonstrates and explains activities to student with disability providing individual attention. This includes focused (active) observation of skill attempts, and practice with student with disability.

**Diversion** (D). Teacher reacts to external stimuli. This includes interruptions from outsiders, responses to emergencies, and the teacher’s voluntary choice to be detached from the lesson.

**No Interaction** (N). No interaction between teacher and student with disability (e.g., teacher appears to avoid contact with student with disability).
INTERVIEW QUESTIONS

1. Provide an example of a;
   a) positive experience with inclusion for you or your students
   b) negative experience with inclusion for you or your students

2. To what degree has inclusion of students with disabilities affected the learning environment
   (social, physical) of students without disabilities?

3. How has inclusion of students with disabilities impacted your teaching strategies and
   styles (use of peer teaching, station teaching, direct instruction, guided discovery, individualized instruction)?

4. Do you have further ideas and strategies that you have not been able to implement,
   but believe might make a difference for you in your classes? What is your most pressing need in order to implement these ideas?

5. Describe what you believe to be the biggest change in your working life as a physical educator as a consequence of teaching students with disabilities.

6. What do you consider to be the major change in your attitudes and beliefs about physical education as a consequence of teaching students with disabilities?

7. To what degree are you informed concerning individual student IEP’s? What do you do with these students? How do IEP’s operate at this school?

8. Do you have any further comments on the issue of dealing with students with disabilities you would like to share with me?
APPENDIX E

OSU HUMAN SUBJECTS INSTITUTIONAL REVIEW BOARD APPROVAL
BEHAVIORAL AND SOCIAL SCIENCES
HUMAN SUBJECTS INSTITUTIONAL REVIEW BOARD IRB:
THE OHIO STATE UNIVERSITY, Columbus, Ohio 43210

Research involving Human Subjects

ACTION OF THE INSTITUTIONAL REVIEW BOARD

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

01B0015 INCLUSION PRACTICES OF SECONDARY PHYSICAL EDUCATION TEACHERS.
Samuel R. Hodge, Jonathan O. Amman, Physical Activity & Educational Services

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

X APPROVED WITH CONDITIONS

DISAPPROVED

* 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: January 26, 2001

Signed: [Signature]

Chairpersons

HS-C259 (Rev. 2/94)
APPENDIX F

PARENTAL CONSENT LETTER
February 20, 2001

My name is Jonathan Ammah and I am a doctoral student of Dr. Sam R. Hodge in the School of Physical Activity and Educational Services, Sport and Exercise Education specialization. We are conducting a study to determine the views and practices of secondary physical education teachers as related to inclusion. Moreover, the study seeks to describe the interaction patterns of physical education teachers toward students with and without disabilities in inclusive classes.

The study we intend to conduct will be part and parcel of the regular physical education class at your child's school. A total of nine physical education classes will be videotaped for observation and coding of the teacher's interaction patterns toward the students in the class over a period of 2 months. The focus of the research will be on the teacher, how he/she interacts with the students in the class. Information related to the students in the class will be kept confidential, and it will be known only to the individuals involved in the research project and will not be released. The role of the observers who will view the videotapes is to code the lessons using the APE - Teacher Version instrument. All data taken during the study, including the videotapes, will be stored at the University and eventually destroyed.

There are no inherent dangers to your child in this study. Information obtained from this study may help physical education teachers of inclusive classes to be effective in their teaching.

If you are willing to allow your child to participate in this study, please return the completed consent form to your child's teacher for collection. For any additional information or questions, please do not hesitate to contact us. Our phone number is 292-1292.

Thank you very much for your cooperation.

Sincerely,

Jonathan Ammah
Doctoral Student

Dr. Sam R. Hodge
Associate Professor
APPENDIX G

CONSENT FORM
CONSENT FOR PARTICIPATION IN SOCIAL AND BEHAVIORAL RESEARCH

I consent to participating in (or my child's participation in) research entitled:

Inclusion practices of secondary physical education teachers

Dr. Sam R. Hodge or Jonathan Amman (Student Investigator)

(Peincipal Investigator)

or an authorized representative has explained the purpose of the study, the procedures to be followed, and the expected duration of my (or 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 I am (or my child is) free to withdraw consent at any time and to discontinue participation in the study without prejudice to me (or 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: ___________________________

Signed: Dr. Sam R. Hodge

(Peincipal Investigator or his/her

authorized representative)

Signed: ___________________________

(Peerson authorized to consent or

peicipant - if required)

Witness: ___________________________

136
APPENDIX H

PERMISSION TO VIDEOTAPE FORM
PERMISSION TO VIDEOTAPE FORM

I give permission to have my son/daughter
videotaped
for the research study entitled "Inclusion practices of secondary physical education teachers",
coordinated by Jonathan Amnah, doctoral student at the Ohio State University, and Dr. Sam R.
Hodge, Associate Professor at the Ohio State University.

I give my consent to have my child's videotapes used for the following professional purpose(s):
(Please check where applicable)

________ Data collection and analysis for the study

________ Dissemination of the research results
(e.g., presentations at professional conferences)

I understand that my child will not be identified by name in any written reports or oral
presentations concerning the results of this study. I reserve the right to change my
mind regarding the use of my child's videotapes for the purposes indicated above.

Parent/Guardian Signature ________________________________

Date: ________________________________

Ohio State University
School of Physical Activity
and Educational Services
Phone: 614-292-9674
Fax: 614-292-7229
APPENDIX I

TEACHERS' BEHAVIORS RAW DATA