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### Inclusion Models in Elementary Physical Education

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**Regis University**  
School for Professional Studies Graduate Programs  
**Final Project/Thesis**

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INCLUSION MODELS IN ELEMENTARY  
PHYSICAL EDUCATION

by  
Wendy Storm

A Research Project Presented in Partial Fulfillment  
of the Requirements for the Degree  
Master of Education

REGIS UNIVERSITY

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## ABSTRACT

### Inclusion Models in Elementary Physical Education

Over the last 30 years the number of disabled students being placed in regular education settings has increased dramatically, as has the severity of their disabilities (Greenwood & French, 2000). With the integration of students into regular education classrooms, practitioners are challenged to provide adequate supports to insure beneficial learning environments.

According to Public Law 105-17 all students must be provided elementary physical education (pecentral.org). The law does not distinguish between students who are classified as “special education students” and those who are classified as general education students. This study investigates the development and implementation of inclusion practices for special education students in general elementary physical education classes. The research project surveyed 21 Eisenberg elementary school (EES) teachers related to the use of selected inclusion strategies for elementary physical education classes at EES. The survey results formulate the basis for implementing inclusion methods at Eisenberg elementary school.

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## Chapter 1

### INTRODUCTION

Given the current trends toward inclusion practices of Special Education students into the general education population, varied techniques are required to maximize learning. By law PL 105-17 all special education students must be provided Elementary Physical Education (pecentral.org). In this study, a review of empirical research and literature has been conducted as a basis for the development and implementation of inclusion strategies in elementary physical education programs.

In this chapter the following subdivisions will be included: statement of problem, background of the problem, purpose of the project, research questions, proposed methods and a list of definitions.

#### Background of the Problem

The Individuals with Disabilities Act of 1997 (IDEA) mandates that students with disabilities be educated with their non-disabled peers in the least restrictive environment possible (pecentral.org). However, teachers often lack the practical information needed to implement programs of inclusion (Amerman & Fleres, 2003).

The law does not distinguish between students who are classified as “general students” and those who are classified as “special education students.” Based on IDEA, children with disabilities are increasingly being included in physical education classes (Hutzler, Fliess & Chacham, 2000). In an ideal environment, physical education would be marked by full participation of all students and by many opportunities for all students. Moreover, all students would be included in every aspect of physical education (Webb & Pope, 1999).

“Inclusion” has its roots in an educational placement model introduced by Reynolds (1962) as a service delivery system for Special Education (Rizzo & Lavey, 2000). Inclusion is the philosophy of merging special and general education and placing all children with disabilities in a general education setting (Block, 2006). The inclusion model provides a definition and conceptual structure for “Least Restrictive Environment” or LRE. The phrase “LRE” has appeared in several Public Laws and is the basis for the practice of inclusion in today’s schools.

#### Statement of the Problem

By law (PL 105-17) all students must be provided elementary physical education (pecentral.org). The law does not distinguish between students who are classified as “special education students” or those who are classified as general education students. The problem to be investigated in this research project is the development and implementation of inclusion practices for special education students in general elementary physical education classes.

#### Purpose of the Project

Over the last 30 years the number of disabled students being placed in regular education settings has increased dramatically, as has the severity of their disabilities (Greenwood & French, 2000). With the integration of disabled students into regular education classrooms, practitioners are challenged to provide adequate supports to insure beneficial learning environments. The purpose of this project was to survey 22 Eisenberg Elementary School (EES) teachers related to the use of selected inclusion strategies for elementary physical education classes at EES.



## Research Questions

The research questions addressed by this project include the following:

1. Which inclusion programs would be most feasible at Eisenberg elementary school?
2. What steps would be required to implement inclusion programs in physical education at Eisenberg elementary school?
3. What peer tutoring models would best meet the needs of special needs students and general education students at Eisenberg elementary school?
4. Is peer tutoring the most often employed strategy, and how viable is peer tutoring at Eisenberg elementary school?

## Methods

A systematic review of current research has been conducted in the use of inclusion strategies in elementary physical education classrooms. With the integration of students' into regular education classrooms, practitioners are challenged to provide adequate supports to insure beneficial learning environments.

In this research project, the use of inclusion strategies was surveyed in terms of teacher perceptions and provided a basis of support for curriculum and student enhancement. Teachers were asked to evaluate select inclusion strategies in terms of perceived effectiveness with their individual classes. Further, respondents were asked to indicate the effectiveness of a variety of inclusions strategies for special education students, 504 attention deficit disorder students, and adaptive physical education students.

The impact of inclusion strategies in physical education on each subgroup and curricular objectives were reviewed. Data collected by questionnaires were included for

the general education students and handicapped peers and the impact on each group given the strategies reviewed. Goals and objectives of selected inclusion strategies were designed for individual needs. Inclusion strategies including peer tutoring were be evaluated at the building level.

#### List of Definitions

Special Needs Students. “Special needs students” refers to any student who has a multidisciplinary plan IEP or 504 plan (Combs & Griffin, 2001).

Individual Education Plan. An” IEP” is an instructional plan including learning objectives. Individual Education Plan is developed by a multidisciplinary team that outlines the child’s education plan for the year (Web & Pope, 2006).

Inclusion. Inclusion refers to the quest to have all students, with varying levels of skill and abilities, educated and interacting together within the context of a general physical education class (Web& Pope, 2006).

General Physical Education. “General physical education placement” refers to the general physical education class placement (Web & Pope, 2006).

Individuals with Disabilities Education Act (IDEA). IDEA refers to the Individuals with Disabilities Act (1997) and mandates that students with disabilities be educated with their non-disabled peers in the least restrictive environment (Amerman & Fleres, 2003).

PL 94 -142. “Public Law 94-142” refers to the original public law mandating Individual Education Plan (Palaestra, 2003).

PL 105-17. “Public Law 105-17” is the IDEA Act as revised in 2004. This

law requires that physical education be included in curriculum as a direct service (Houston-Wilson & Lieberman, 1999).

Children With Disabilities. Children with disabilities are students with permanent or temporary mental, physical or emotional disabilities, who are unable to have all their educational needs met in a standard physical education class during the school day or to be adequately educated in the public schools (pecentral.org).

Section 504 of the Rehabilitation Act of 1973. Section 504 is a law that requires schools to provide assistance to students with special learning needs who do not meet the evaluative criteria for eligibility for special education under the provisions of IDEA.

Special Education. Special Education is specifically designed instruction to meet the unique needs of an individual student to include but not be limited to instruction physical education (pecentral.org).

### Summary

In the present day educational environment there are still struggles with the concepts, placement and implementation of inclusion strategies. The identification of workable inclusion strategies and practices will help to ensure quality education for all students. This chapter introduced the problem of inclusion and identified a research strategy selection of inclusion strategies for Eisenberg elementary school.

## Chapter 2

### REVIEW OF LITERATURE

By Public Law 105-7 all students must be provided elementary physical education (pecentral.org). The problem investigated in this research project is integrating inclusion practices for special education students' in general elementary physical education classes at Eisenberg elementary school.

This chapter provides a review of research and literature related to the study. The review of literature focused on the following areas:

- a. controlling legislation,
- b. physical education programs and placement, and
- c. inclusion practices.

#### Controlling Legislation

Individuals with Disabilities Education Act (IDEA) and related public laws have been reauthorized several times since 1977. The past several reauthorizations have been challenging to physical education. In the latest reauthorization of IDEA the existence and value of physical education as was questioned for students with disabilities.

Historically, physical education has always been an integral part of special education regulations. However, recent reauthorizations have come close to omitting physical education in the legislation.

Public Law 94-142 introduced the role and importance of physical education in attaining various physical and motor objectives for students with disabilities (Stein, 2003). Pointed out in the definition of physical education (still the only area included within the definition of special education) contained the following legislative mandates: the development of (a) physical and motor fitness, (b) fundamental motor skills and patterns, and (c) skills in aquatics, dance, and individual games and sports (Stein, 2003). It was explicitly clear that physical education was included in this legislation to ensure the same physical and motor opportunities for students with disabilities as for non-disabled peers (Stein, 2003).

## Physical Education Programs and Placement

### *Service Delivery Models*

The Santa Fe Unified School District notes that the continuum of placement service can be grouped into three major categories provided by local education agencies and school districts as follows:

1. Direct service models include direct physical education services provided by an adapted physical education specialist to students who have special needs, as indicated by assessment.
2. Collaboration model designates services provided and /or implemented jointly with other school staff members to assist students in meeting individualized goals and objectives through all of the physical education options. Services may be provided in a way intended to lead students progressively through various physical education options.

3. Consultation model designates assistance given to parents, general and special education teachers, or general physical education teachers who conduct the general, modified, or specifically designed physical education options. ([portal.sfusd.edu](http://portal.sfusd.edu)).

*Adapted Physical Education*

Adaptive physical education (APE) is a diversified program of activities specially designed for an individual who meets verification criteria for physical, mental, and /or emotional disabling conditions and is not able to participate safely and/or successfully, without modifications, to the regular physical education services ([pecentral.org](http://pecentral.org)). It is not uncommon for physical education to be lumped together with some related services since there appears to be more resemblance to physical therapy, recreation and even occupational therapy in some contexts than to classroom instruction (Seaman, 2003).

Below, Lieberman (2004) identifies myths and facts related to inclusion in adaptive physical education:

<u>Myth</u>	<u>Fact</u>
Adapted physical education involves placement in a separate setting.	Adapted physical education is a service not a placement and can be delivered in general physical education. APE is any physical education that meets the unique needs of a student.
The adaptive physical education specialist will work on a one-on-one basis in the inclusive setting at all times.	Today, most adapted education specialists are consultants and although they will give the instructor important information and support, they rarely work a one-on-one basis in general physical education.
Students with disabilities can be included without support in general physical education.	Many students with disabilities benefit from a small teacher-student ratio. Ensuring that the teacher assistant attends physical education and/or setting up a peer tutor program will enhance the success of all students.

The adaptive physical education specialist or the special education teacher will write the physical education goals for the IEP.	Ensure the most accurate present levels of performance and appropriate goals and objectives; the person who provides direct service to the child with the disability should write the physical education goals and objectives
If a child is included in general physical education, the IEP only has to have a check on the front page under “inclusive physical education.”	The IEP must include physical education. If a child is included in general physical education, individualized modification, necessary supports, and goals and objectives must be included.

*Physical Education Placement*

It is important to note that the role of adapted physical education is consultative in nature. Current service delivery models include visitation and professional support, but no direct service (Houston & Lieberman, 1999). The Least Restrictive Environment (LRE) may include one or more of the following options:

- (a) the general physical education setting;
- (b) the general physical education setting with teaching assistant or peers;
- (c) a separate class setting with peers;
- (d) a separate class setting with assistants; and,
- (e) a one-to-one setting between students and the instructor.

In addition to the options identified for service delivery a combination of services may be delivered to include “part time regular” and “part time special education class” placement (Houston & Lieberman, 1999). In those instances where a student must be segregated from typically developing peers, justification for the separation must be included in the Individual Education Plan (Webb, 1999).

The law requires that to the maximum extent possible students should be educated with their typically developing peers. Some students can participate in regular physical

education on a fulltime basis without support. Other students, however, may require a continuum of services and support or a continuum of placement options (Houston-Wilson & Lieberman, 2001). This support continuum may include the following:

- (a) an adapted physical education specialist providing direct instruction;
- (b) an adaptive physical education specialist consulting with the regular physical education educator;
- (c) a teacher aid available to assist as needed; or
- (d) a peer tutor who “watches out for” and provides assistance as needed.

#### Inclusion Practices

##### *Historical Models*

Research on fully inclusive physical education reveals that disabled and non-disabled students can get good physical education from an appropriately modified program (Block & Vogler, 1994). The modified programs consist of special curricular and educational schemes that enable successful implementation of total inclusion (Block & Vogler, 1994). Fully inclusive programs use special personnel and methods to reach the disabled and non-disabled children in regular integrated classes.

With regard to individuals with physical disabilities, attitudes have largely been ignored in the extent of inclusion-related research (Webb & Hodge, 2001). Such a void in the literature is due in part to the lack of a theoretically orientated, valid, and reliable attitudinal instrument to examine the attitudes of individuals with disabilities (Webb & Hodge, 2001). This inclusion theory advocates disabled children joining normal children in all academic and physical activities (Craft, 1994).



*Current Inclusion Models*

Inclusion has been practiced in schools for some time. The concept of Least Restrictive Environment (LRE) was first introduced in the 1960's. Still, there are misconceptions about the process and the educator's role in the development of programming.

Physical educators tend to ask the wrong questions (Rizzo & Lavay, 2000). Many regular and adaptive physical educators use inappropriate practices when teaching students with disabilities (Rizzo & Lavay, 2000). Inclusion does require some special planning and support to be successful.

*Evaluation of Inclusion Strategies*

The following inclusion strategies at the building level have been identified including implementation and sources of information (Lieberman, James & Ludwa, 2004):

<u>Inclusion Strategy Sources</u>	<u>When to Implement</u>
Teacher Assistants	Set up requirements for teacher assistants before the start of school and train according to the needs in physical education.
Peer tutoring	Set up program at start of the year and implement throughout the school year.
Disability Awareness	Set up disability awareness activities at start of the year and continue through out the year.
Written physical education goals and objectives including 504 plans.	IEP's and 504 plans must be written before the scheduled IEP meeting. Assessment must be continuous in order to ensure appropriate present levels of performance.
In-service	The physical education teacher should utilize every opportunity to gain additional information about inclusion through in-services and workshops.

## Summary

The review of literature included the following: historical perspective of inclusion; the identified models and strategies of what are research based and reflect current practices nationwide; the special education placement hierarchy includes a full spectrum of services depending on level of severity and setting involved; the perspective models reflect the range of individuals and the models designed to address these needs.

## Chapter 3

### METHODS

#### Introduction

Given the current trends toward inclusion practices of special education students into the general education population, varied techniques are required to maximize learning. By law (PL 105-17) all special education students must be provided elementary physical education (pecentral.org). In this study, a review of empirical research and literature was conducted as a basis for the development and implementation of inclusion strategies in Elementary Physical Education Programs.

#### Statement of the Problem

By law (PL 105-17) all students must be provided elementary physical education (pecentral.org). The law does not distinguish between students who are classified as “special education students” and those who are classified as “general education students.” The problem to be investigated in this research project is the development and implementation of inclusion practices for special education students in general elementary physical education classes.

## Research Questions

The research questions addressed by this project include the following:

1. Which inclusion programs would be most feasible at Eisenberg elementary school (EES)?
2. What steps would be required to implement inclusion programs in physical education at EES?
3. What peer tutoring models would best meet the needs of special needs students and general education students at EES?
4. Is peer tutoring the most often employed strategy, and how viable is peer tutoring at Eisenberg elementary school?

## Research Design

The evaluation of inclusion strategies will include specific alternatives to promote physical education to all students. Evaluation of different service delivery models was described and the benefits and deficiencies were evaluated at the building level by classroom teachers. Teachers were being asked to evaluate the perceived need in the building for the strategies detailed below with their student population in mind.

### *Peer Tutoring Choices*

Teachers were asked via questionnaire to evaluate the perceived effectiveness of the following peer tutoring strategies as identified by (Barfield, Hannigan-Downs & Lieberman, 1998; and Lieberman, Houston-Wilson, 2002).

### *Goal statement of Peer Tutoring Programs*

Depending on the individual needs of the tutor and tutee, different goals and objectives for peer tutoring programs may exist within one physical education classroom (Barfield, Hannigan-Downs & Lieberman, 1998). Specific objectives of the peer tutoring program may include:

- (a) to afford extra opportunities for physical fitness and motor abilities for all students;
- (b) to provide appropriate peer models fostering age appropriate social interactions for students with disabilities;
- (c) to increase understanding of non-disabled peers that all people have individual strengths and weaknesses;
- (d) to offer students with motor difficulties effective skill demonstrations using skilled peer tutors;
- (e) to increase opportunities to perform skills appropriately for students with disabilities;
- (f) to provide appropriate models for behavior;
- (g) to encourage the desire to participate and improve physical activity;
- (h) to foster and allow students with disabilities the opportunity to establish extended friendships outside the physical education class; and,
- (i) to increase awareness and sensitivity of peers toward students with disabilities and encourage more favorable attitudes.

### *Peer Tutoring Strategies*

1. Unidirectional peer tutoring involves a peer tutor who teaches the entire time, and the child with a disabled peer in the pair. This works well with severe disabilities like autism, mental retardation and physical disabilities like cerebral palsy.
2. Bi-directional or reciprocal peer tutoring. A child and a disabled peer form a dyad. Both children take turns as the teacher. This works well with mild disabilities.
3. Class-wide peer tutoring involves dividing the class into dyads. Each child participates in reciprocal prompts, error correction and help to their partner. Class-wide peer tutoring is unique because all children are used to keep focused on the objectives of the lesson. The main benefit is the whole class is involved in the tutoring activity.
4. Cross- aged peer tutoring occurs when older children are chosen to tutor a younger child. This method works best when the tutor has an interest in working with children with disabilities. The advantages to this method are the tutor gains valuable knowledge and the tutee gets individualized instruction.

Teachers were asked to evaluate different peer tutoring methods in terms of methods perceived effectiveness given the student population. Peer tutor training Procedure (Lieberman, 2002) is as follows: (a) develop an application procedure, (b) obtain permission, (c) develop disability awareness techniques, (d) develop communication techniques, (e) teach instructional techniques, (f) use scenarios to aid in teaching, (g) test for understanding, and (h) monitor progress.

Teachers were asked for input into the specific steps from a classroom point of view. Results were compiled based on the willingness of the classroom teacher to integrate classroom time in the implementation of peer tutoring in physical education.

#### Procedures

A questionnaire was utilized to collect data for the research project (see Appendix A). Construction of the questionnaire included evaluation of inclusion strategies, peer tutoring, and implementation models.

#### Population

The population included 22 teachers who were asked to voluntarily complete a questionnaire, related to optimal inclusion practices for Eisenberg elementary school and twenty-one questionnaires were returned reasonably in a response rate of 95.5%.

#### Instrumentation

The questionnaire provided a scale of one to five with values placed on each number based on perceived effectiveness. Items on the questionnaire were designed to address each of the following research questions for this project: inclusion strategies, implementation procedures, and evaluating strategies. Also, the questionnaire was comprised of open ended questions designed to illicit teacher opinions on the effect of proposed programming on general education students, 504 students and students with disabilities.

The inclusion in physical education questionnaire gathered information on different inclusion methods and strategies. The questions described established techniques of inclusion and were compared to different subgroups within the Eisenberg

elementary school. The peer tutoring questions stratified the peer tutoring models to establish teacher's opinions on which peer tutoring strategy would work with their class.

### Data Analysis

Questionnaires were used to collect data. The lead investigator passed out questionnaires to teachers individually during their prep period or after school in their classroom. The questionnaire consisted of five questions but allowed for some probe questions, if needed to obtain additional information.

Common themes in the descriptions were established based on the teacher's experience. After tallying the questionnaire responses and transcribing them to the open ended question, the following steps identified by Leedy and Ormrod (2005) were taken to analyze the questionnaire responses: identify statements that relate to the problem; group statements into meaning units; seek divergent perspectives; and construct a composite. The final result yielded a general description of inclusion practices and models in current practice at EES. The service delivery models and organizational strategies were compiled. The perspectives on peer tutoring followed the described format.

### Summary

Inclusion has been a fact of life for teachers at the elementary level for many years. The study helped define inclusion strategies, peer tutoring models, and implementation procedures for Eisenberg elementary school. The planning for inclusion should include different view points and perspectives from professionals who know students the best, their teachers.

The questionnaire included input into school wide inclusion strategies like disability awareness and defined practices currently in place in terms of effectiveness.



The scope of the questionnaire allowed for honest input for service delivery in terms of educational outcomes. The end result was data that will serve as a knowledge base by which to improve the current physical education environment. The education of all children should be an outcome of this project.

## Chapter 4

### RESULTS

#### Introduction

In this chapter the following results of the questionnaire will be presented. Several inclusion strategies and peer tutoring models results are included by research question. The results by research question are presented in percentage of respondents. Staff responses also include a rank order of peer tutoring strategies. The several inclusion strategies were also ranked ordered by the respondents.

#### Results

Introductory questions 1, 2, and 3 were designed to determine the experience and level of the staff members. Results indicated that 23% of respondents had less than five years of experience; 14% had five to ten years experience; 19% had ten to fifteen years of experience; 33% had sixteen to twenty years experience; 9% had over 20 years experience. This established that most of the teachers could be classified as mid career teachers. Of the twenty-one respondents 38% were primary teachers; 28% were intermediate; 14% were special educators; 4% were specialists; 14% did not disclose teaching level assignment.

Questions were included in the survey to measure the staff perceptions on common inclusion strategies including the use of teacher assistants, peer tutoring,

disability awareness day, IEP/504 plans and modifications in physical education class. Specific models of peer tutoring were stratified and staff was asked to rank order the strategies as to impact on general and special needs populations. Questions 15, 16 and 17 were used to measure the overall attitudes of staff members. The specific survey questions used included the following:

15. Physical education inclusion is beneficial to all students.
16. Positive behavior and social awareness are beneficial outcomes of inclusion.
17. Inclusion practices in physical education impact my classroom.

Question	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
15 (4)	10, (47%)	8, (38%)	2, (9%)	0, (0%)	1, (4%)
16 (4)	14, (66%)	5, (23%)	1, (4%)	1, (4%)	0, (0%)
17 (4)	5, (23%)	4, (19%)	8, (38%)	1, (4%)	3, (14%)

### Results by Research Questions

#### *Research Question # 1*

*Which inclusion programs would be most feasible at Eisenberg elementary school?*

Questions were included in the survey to measure the staff perceptions on common inclusion strategies including the use of teacher assistants, peer tutoring, disability awareness day, IEP/504 plans and modifications in physical education class. Survey question number 3, 4, 5 were designed to measure the use of teacher assistants at Eisenberg elementary school and included the following:

3. Using teacher assistants would be a useful inclusion strategy to help meet the needs of specialized populations in physical education at Eisenberg.

4. The impact of using teacher assistants in physical education with general education students would be positive.
5. Implementation of the inclusion of teacher assistants as an inclusion strategy would be workable.

Question (research Question)	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
3 (1)	(76%)	(14%)	(9%)	(0%)	(0%)
4 (1)	(57%)	(28%)	(9%)	(0%)	(4%)
5 (2)	(52%)	(19%)	(19%)	(4%)	(4%)

The second inclusion strategy measured by the survey was a disability awareness day.

Questions 6 and 7 in the survey included the following:

6. Eisenberg students would benefit from a disability awareness day.
7. Eisenberg teachers would benefit from disability awareness in-service.

Question (research Question)	Strongly agree	Somewhat agree	Neither agree or disagree	Somewhat disagree	Strongly disagree
6 (1)	(80%)	(14%)	(0%)	(4%)	(0%)
7 (1)	(66%)	(23%)	(4%)	(4%)	(0%)

The third inclusion strategy measured was the modification of rules, equipment and instruction in physical education class. Questions 12, 13, and 14 included the following statements:

12. The modification of rule equipment and instruction can provide for effective instruction for all students in physical education.
13. The modifications of rules equipment and instruction can provide for in effective instruction for IEP students in physical education.

14. Modifications of rules equipment and instruction would benefit the general education student in physical education.

Question (research Question)	Strongly agree 1	Somewhat agree 2	Neither agree or disagree 3	Somewhat disagree 4	Strongly disagree 5
12 (2)	(61%)	(19%)	(9%)	(14%)	(0%)
13 (2)	(66%)	(9%)	(14%)	(9%)	(0%)
14 (2)	11, (52%)	2, (9%)	5, (23%)	3, (14%)	0, (0%)

The fourth inclusion strategy was the use of 504 treatment plans and IEP goals and objectives.

10. The current IEP plans for students include goals and benchmarks for physical education
11. Current 504 treatment plans include specific accommodations for physical education.

Question (research Question)	Strongly agree	Somewhat agree 2	Neither agree or disagree 3	Somewhat disagree 4	Strongly disagree 5
10 (1)	6, (28%)	3 (14%)	9, (42%)	1, (4%)	1, (4%)
11 (1)	6, (28%)	4, (19%)	7,(33%)	1, (4%)	2, (9%)

### *Research Question 2*

*What steps would be required to implement inclusion programs in physical education at EES?*

Question number 5 asked participants to rank order the value of inclusion of teacher assistants as an effective strategy at Eisenberg.

Question	Strongly agree	Somewhat agree 2	Neither agree or disagree 3	Somewhat disagree 4	Strongly disagree 5
5 (2)	(52%)	(19%)	(19%)	(4%)	(4%)

Implementation was also included in the rank order questionnaire section. Along with the impact of each identified strategy on general and special needs populations. Program assessment difficulty was also rank ordered.

### *Research Question 3*

*What peer tutoring models would best meet the needs of special needs students and general education students at EES?*

The following questions were a separate section of the questionnaire in which staff members were asked to identify which peer tutoring service delivery model would best address the statements 18 through 26. There are four dominant peer tutoring models in the practice of inclusion. Each is defined as follows:

Unidirectional peer tutoring involves a peer tutor and a disabled peer in a dyad. The peer tutor provides assistance; the disabled peer follows the direction of the peer tutor.

Bi-directional or reciprocal peer tutoring involves a peer tutor and a disabled peer in a dyad. Both children take turns as the teacher/facilitator.

Class-wide peer tutoring involves dividing the class into multiple dyads where each child participates in reciprocal prompts, error correction and providing assistance to his/her partner.

Cross-aged peer tutoring occurs when older children serve as peer tutors to younger children.

The following number questions were presented to staff to select the best peer tutoring model to match the statement. Results are presented in table form.

18. To afford extra opportunities for physical fitness and motor abilities for all students.
19. To provide appropriate peer models fostering age appropriate social interactions for students with disabilities.
20. To increase understanding of non-disabled peers that all people have individual strengths and weaknesses.
21. To offer effective skill demonstrations to students with motor difficulties using skilled peer tutors.
22. To increase opportunities to perform skills appropriately for students with disabilities.
23. To provide appropriate models for behavior.
24. To encourage the desire to participate and improve physical activity.
25. To foster and allow students with disabilities the opportunity to establish extended friendships outside the physical education class.
26. To increase awareness and sensitivity of peers toward students with disabilities and encourage more favorable attitudes.

#### Results for Peer Tutoring

Question	Unidirectional	Bi-Directional	Class-wide	Cross Aged
18	(5%)	(23%)	(61%)	(9%)
19	(28%)	(23%)	(42%)	(4%)
20	(9%)	(14%)	(52%)	23%
21	(33%)	(19%)	(19%)	(28%)
22*	(20%)	(45%)	(20%)	(15%)
23	(19%)	(9%)	(33%)	(38%)
24*	(5%)	(5%)	(55%)	(33%)
25	(9%)	(38%)	(23%)	(28%)
26	(14%)	(9%)	(42%)	(33%)

\* = 21 Responses

#### Research Question 4

*Is peer tutoring the most often employed strategy, and how viable is peer tutoring at Eisenberg elementary school?*

This research question was addressed in the rank order section of the questionnaire as well as the tutoring service delivery model section. The rank order for peer tutoring results and the relationship between peer tutoring and other common strategies are as follows:

Strategy	Impact on Special Needs	Impact on General education	Program implementation difficulty	Program Assessment Difficulty
Teacher Assistants	2	2	1	2
Peer Tutoring	5	1	3	6
Disability Awareness	6	5	4	3
IEP Goals	1	4	2	1
504 plans	4	6	5	4
Modifications	3	3	6	5

1 low value to 6 high value

#### Summary

The majority of the questions presented in the survey were positively viewed by staff members completing the survey. Question groupings along with the rank order section developed a hierarchy of service delivery models in which to evaluate in terms of impact on both general and physical education programs. The results included staff perceptions on implementation and difficulty level with assessing results and effectiveness of programming.

The stratification of peer tutoring models and delivery of services at the classroom level resulted in additional information in addressing special needs students. It should be



noted that the rank order section reinforced prior questions in each of the widely accepted and used strategies.

Question (research Question)	Strongly agree	Somewhat agree 2	Neither agree or disagree 3	Somewhat disagree 4	Strongly disagree 5
10 (1)	6, (28%)	3 (14%)	9, (42%)	1, (4%)	1, (4%)
11 (1)	6, (28%)	4, (19%)	7,(33%)	1, (4%)	2, (9%)

## Chapter 5

### DISCUSSION

#### Impact

In an effort to gauge the overall impact and culture at Eisenberg in relation to inclusion in physical education three questions were included in the questionnaire. The results indicate that 85% of staff surveyed indicated that they agreed that inclusion is beneficial to all students. The outcomes of inclusion including behavior and social awareness were seen as beneficial to students by 89% of staff surveyed. In addition 42% of the staff surveyed indicated that inclusion in physical education had a positive impact on their classrooms.

#### Discussion by Research Questions

*Research Question 1: Which inclusion programs would be most feasible at Eisenberg elementary school?*

Questions were included in the survey to measure the staff perceptions on common inclusion strategies including the use of teacher assistants, peer tutoring, disability awareness day, IEP/504 plans and modifications in physical education class. Specific models of peer tutoring were stratified and staff was asked to rank order the strategies as to impact on general and special needs populations.

Results indicated that the staff viewed a disability awareness day would be beneficial to staff and students with over 90% of those surveyed agreeing. It should be noted that the awareness day would be a one time event as opposed to daily modifications or service delivery models on an ongoing basis.

The use of teacher assistants was viewed by 90% of the staff as being beneficial. This was reinforced by the rank order results as well. The staff viewed the use of teacher assistants as workable within the current structure at Eisenberg elementary school.

Peer tutoring as an inclusion strategy in physical education was viewed by staff as beneficial to both general and special needs populations. This was reinforced by the rank order section of the questionnaire. Eighty percent of those surveyed viewed it positively and along with the use of teacher assistants was agreed with by the majority of those surveyed.

The documentation process and the written plans for special needs students in IEP and 504 plans were viewed by 42% of the staff as in place for physical education. Current treatment plans including specific accommodations for physical education was viewed by 47% of the staff in agreement.

Modification of rules and equipment was viewed by 61% of the staff as beneficial to the general education population. The overall impact of modifications in physical education was interpreted by staff as beneficial to all students with 80% of the staff in agreement. IEP students also were viewed as to benefit by 75% of staff given modification to rules equipment and instruction.

## Research Question Two

*Research Question 2: What steps would be required to implement inclusion programs in physical education at EES?*

Implementation was rank ordered on the survey. The results indicated that the use of teacher assistants would be the least (lowest value) to implement. IEP goals were viewed as the second lowest value followed by peer tutoring, disability awareness day, and 504 plans. The hardest to implement were the in class modifications. The implementation of teacher assistants as an inclusion strategy was strongly agreed with (52%) of the staff.

## Research Question Three

*Research Question 3: What peer tutoring models would best meet the needs of special needs students and general education students at EES?*

Questions relating to peer tutoring were strongly agreed with in the survey. Ninety percent of the staff surveyed agreed or strongly agreed that peer tutoring would benefit from peer tutoring in physical education class. Eighty percent of those responding agreed or strongly agreed that peer tutoring would benefit general education students. In addition when asked to rank order strategies peer tutoring was given a high value in relationship to the impact on general education students.

### *Unidirectional Peer Tutoring*

Unidirectional peer tutoring was viewed by 33% of the staff as the best peer tutoring model to offer effective skill demonstrations to students with motor difficulties. On all other questions relating to peer tutoring models of service delivery unidirectional peer tutoring received a lower percentage of responses. It was viewed as the least valued

strategy for fostering and allowing students with disabilities the opportunity to establish friendships. It was also the least favored strategy of peer tutoring to afford extra opportunities for physical fitness and motor abilities for all students. It was not viewed as an effective model for encouraging active participation or improving physical activity.

#### *Bi-directional Peer Tutoring*

Bi-directional peer tutoring was viewed by 4 of the staff to be the best peer tutoring strategy to increase the opportunities to perform skills appropriately for students with disabilities. It was also the favored peer tutoring model for students with disabilities to foster friendships outside of physical education class. It was the least likely to increase awareness and sensitivity of peers toward students with disabilities and encourage favorable attitudes.

#### *Class-wide Peer Tutoring*

Class-wide peer tutoring was viewed as the model that would best afford extra opportunities for physical fitness and motor abilities for all students reflected by 61% of the staff. It was also the primary peer tutoring model for providing appropriate peer models fostering age appropriate social interactions for students with disabilities and to increase understanding of non-disabled peers that all people have individual strengths and weaknesses. Class-wide peer tutoring was also viewed as the primary model to encourage the desire to participate and improve physical activity.

#### *Cross-Aged Peer Tutoring*

Cross-aged peer tutoring was viewed as the best peer tutoring strategy to increase opportunities to perform skills appropriately for students with disabilities with 38% of the

responses. It was not viewed by the staff to be effective providing appropriate peer models fostering age appropriate social interactions for students.

#### Research Question Four

*Is peer tutoring the most often employed strategy, and how viable is peer tutoring at Eisenberg elementary school?*

Peer tutoring models for physical education instruction were viewed by the staff as beneficial. Specific survey questions designed to measure benefits to special education and general education students resulted in a 90% agreement that the special education students would benefit from peer tutoring while 80% surveyed indicated they agreed with the statement that peer tutoring would also benefit general education students.

When asked to rank order assessment difficulties peer tutoring was given the lowest value. Program implementation was viewed in the composite results as third with teacher assistants and IEP goals receiving higher value. The use of teacher assistants was viewed as the high value in relationship to the impact on general and special education students.

#### Related Discussion

The questionnaire and value of the results may indicate a direction of programming based on the views of other staff members in the building. The use of teacher assistants in physical education is current practice thus the results indicate a reaffirming position in regard to current practice.

The documentation process for IEP's and 504 plans indicate that an area of ongoing concern and should be considered in making changes in current practice. Based

on the input from staff the presents and goals and objectives in IEP's and accommodations for 504 students should be continued to be addressed as part of the compliance with federal mandates.

The peer tutoring service delivery model was highly agreed upon by the majority of staff members and indicates that the staff values the model. The results concur with current research and reflect trends in physical education inclusion. Care should be given to address the implementation of the model to meet the current district guidelines in the implementation of peer tutoring. Current literature cited in this paper includes parent authorization and should be addressed as a step in preparing to use the strategy in physical education.

#### Implications

Class-wide peer tutoring was viewed as the model of choice in most of the related items in the questionnaire. The involvement of the whole class into multiple dyads where each child participates in reciprocal prompts, error correction and providing assistance to partners may reflect strategies already in use by the staff in other instructional settings. The challenges specific to physical education may be unforeseen and require specific implementation and evaluation procedures to ensure curricular objectives are maintained in relation to the standards based curriculum in physical education. This reinforces the results of the items on the survey relating to in class modifications of rules equipment and instruction. It should be noted that the assessment and implementation of modifications was viewed as more difficult by the staff members.

The use of a disability awareness day was strongly viewed as benefiting both teachers and students. Given the nature of the strategy and the time allotment the results

indicate that the activity would be beneficial as part of the physical education inclusion model. Specific steps in organizing involve school cooperation and teacher and administrative support.

#### Recommendations for Improving Practice

The questionnaire items that were designed to measure staff attitudes toward inclusion were very positive in nature. Given the responses the impact of inclusion in physical education impacts classroom teachers and students in appositive was. The majority of the staff surveyed were mid career professionals that viewed inclusion as a positive for both general and special needs students. The bias of the staff indicates that the school as a whole has a positive attitude in place for inclusion. This may be due to the sum total of training, experience and current practice in other instructional settings as well physical education.

The views of professionals in the building indicated that several of the school and district wide programs are viewed as beneficial to all students. The ability to use these results in daily practice reflects current research in the field of inclusion in special education. Allowing for input from staff members in different levels of aged students reflected some general considerations appropriate for all levels.

In the development of a plan of action at the building level the results indicate that the use of teacher assistants is essential to inclusion. The specific goals and objectives in IEP and accommodations in 504 plans must be continued and care should be taken to facilitate their development to ensure the input and recommendations from a physical education standpoint.



The use of peer tutoring should be presented to the administration and specific steps in implementation should be addressed. Parental consent and administrative support would be essential in the development of this plan.

The overall practice of inclusion would be enhanced from a disability awareness day. A school wide development of activities may be seen as a basis for implementation. Administrative and classroom support would be essential even if the activities were carried out during allotted physical education class time.

The results seem to reflect current identified trends in physical education and the current practice in Clark County School District. The staff input should be somewhat put into context in that the staff surveyed were not in physical education positions and may have limited or somewhat opinionated bias towards physical education.

#### Recommendations for Further Research

Given the nature and limitations of this research the research is limited and thus more research is indicated. The most pronounced area from continued study would be to address the perceptions of other physical education teachers at the elementary level. The use of input from other service providers may provide more in depth alternatives to the models and strategies presented. The degree of inclusion in different buildings may alter the models that are effective given the heterogeneous nature of the student populations given different demographic areas.

Continued study should also include adaptive physical education personnel and given the consultative nature of the position research, should be conducted with a different format to include other in use strategies and models in place. Assessment and implementation of these procedures could prove to a valuable tool in a building setting.

A continued look at administrative support and input at the building level would complete the research picture in addressing inclusion. Administrative support and requirements may be viewed and compared with the individuals at the line level for greater insight.

It is recommended that the conclusions reached in this study be validated by increasing the scope of the individuals surveyed. The specific results gathered from other physical educator and adaptive physical educators may differ from classroom teachers included in this survey. The comparisons could be used to reflect accurate educational models and strategies in both general and special needs students.

#### Summary

Given the limitations of this study certain aspects of the survey reflected research and reinforced many accepted models of service delivery. The overall attitudes of the staff were positive for inclusion and the results indicated a bias toward the effects being positive for general and special needs students. The overall results would indicate that the use of inclusion is beneficial to students and the specific models and strategies although much different in nature were viewed as effecting instruction and students at all levels and ages.

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## Appendix A

### Physical Education Inclusion Survey

Introduction: As you are aware, federal law requires that physical education be provided to all students regardless of disability status. This survey, part of my master's degree program at Regis University, is intended to provide insight and clarification as to which inclusion programs and/or strategies might be most helpful to all students enrolled at Eisenberg Elementary School. Thank you so much for agreeing to participate in this research project.

Directions: The survey questions are grouped into three main areas: inclusion models, implementation strategies, and potential peer tutoring elements. In addition to circling your preferred response for each item in the survey, please take a moment to provide modest background information as well.

#### Background Information

1. Number of years of teaching experience: \_\_\_\_\_
2. Primary teaching assignment (please circle one): Primary Intermediate  
Special Ed Specialist

#### Survey

Please circle the number for each item which most closely reflects your opinion where

- 1 = Strongly Agree
- 2 = Somewhat Agree
- 3 = Neither Agree/Disagree
- 4 = Somewhat Disagree
- 5 = Strongly Disagree

3. Using teacher assistants would be a useful inclusion strategy to help meet the needs of specialized populations in physical education at Eisenberg.  
1      2      3      4      5
4. The impact of using teacher assistants in physical education with general education students would be positive  
1      2      3      4      5
5. Implementation of the inclusion of teacher assistants as an inclusion strategy would be workable at Eisenberg elementary.  
1      2      3      4      5

6. Eisenberg students would benefit from a disability awareness day.  
1      2      3      4      5
7. Eisenberg teachers would benefit from disability awareness in-service.  
1      2      3      4      5
8. Special education students would benefit from Peer Tutoring in physical education classes.  
1      2      3      4      5
9. General education students would benefit from Peer Tutoring in physical education classes.  
1      2      3      4      5
10. The current IEP plans for students include goals and benchmarks for physical education.  
1      2      3      4      5
11. Current 504 treatment plans include specific accommodations for physical education  
1      2      3      4      5
12. The modification of rules, equipment and instruction can provide for effective instruction for all students in physical education.  
1      2      3      4      5
13. The modification of rules, equipment and instruction can provide for effective instruction for IEP students in physical education.  
1      2      3      4      5
14. Modification of rules equipment and instruction would benefit the general education students in physical education.  
1      2      3      4      5
15. Physical education inclusion is beneficial to all students.  
1      2      3      4      5
16. Positive behavior and social awareness are beneficial outcomes of inclusion.  
1      2      3      4      5

17. Inclusion practices in physical education impact my classroom.

1      2      3      4      5

### Peer Tutoring Models

There are four dominant peer tutoring models in the practice of inclusion. Each is defined as follows:

Unidirectional peer tutoring involves a peer tutor and a disabled peer in a dyad. The peer tutor provides assistance, the disabled peer follows the direction of the peer tutor.

Bi-directional or reciprocal peer tutoring involves a peer tutor and a disabled peer in a dyad. Both children take turns as the teacher/facilitator.

Class-wide peer tutoring involves dividing the class into multiple dyads where each child participates in reciprocal prompts, error correction and providing assistance to his/her partner.

Cross-aged peer tutoring occurs when older children serve as peer tutors to younger children.

Given your current class population, please circle **ONE** peer tutoring model which might best meet the goals identified below where

1 = Unidirectional peer tutoring

2 = Bi-directional peer tutoring

3 = Class-wide peer tutoring

4 = Cross aged peer tutoring

18. To afford extra opportunities for physical fitness and motor abilities for all Students.

1      2      3      4

19. To provide appropriate peer models fostering age appropriate social interactions for students with disabilities.

1      2      3      4

20. To increase understanding of non-disabled peers that all people have individual strengths and weaknesses.

1      2      3      4

21. To offer effective skill demonstrations to students with motor difficulties using skilled peer tutors.

1      2      3      4

22. To increase opportunities to perform skills appropriately for students with disabilities.

1      2      3      4

23. To provide appropriate models for behavior.  
1 2 3 4
24. To encourage the desire to participate and improve physical activity.  
1 2 3 4
25. To foster and allow students with disabilities the opportunity to establish extended friendships outside the physical education class.  
1 2 3 4
26. To increase awareness and sensitivity of peers toward students with disabilities and encourage more favorable attitudes.  
1 2 3 4

**Please Rank Order the Value of the Following Strategies**

1 = high value to 6 = low value

Strategy	Impact on Special Needs Populations	Impact on General Education	Program Implementation Difficulty	Program Assessment Difficulty
Teacher Assistants				
Peer Tutoring				
Disability Awareness In-service				
IEP Goals/ Benchmarks				
504 Treatment Plans				
Modification of Rules, Instruction, Equipment				

Comments:

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**Thank you for your assistance!**



Appendix B

Data Table 1

Rank order of Strategies Composite Results

Strategy	Impact on Special Needs	Impact on General education	Program implementation difficulty	Program Assessment Difficulty
Teacher Assistants	2	2	1	2
Peer Tutoring	5	1	3	6
Disability Awareness	6	5	4	3
IEP Goals	1	4	2	1
504 plans	4	6	5	4
Modifications	3	3	6	5

1= high value 6= low value

## Appendix C

### Data Table 2

Question	Strongly agree 1	Somewhat agree 2	Neither agree or disagree 3	Somewhat disagree 4	Strongly disagree 5
3	16, (76%)	3, (14%)	2, (9%)	0, (0%)	0, (0%)
4	12, (57%)	6, (28%)	2, (9%)	0, (0%)	1, (4%)
5	11, (52%)	4, (19%)	4, (19%)	1, (4%)	1, (4%)
6	17, (80%)	3, (14%)	0, (0%)	1, (4%)	0, (0%)
7	14, (66%)	5, (23%)	1, (4%)	1, (4%)	0, (0%)
8	11, (52%)	8, (38%)	2, (9%)	0, (0%)	0, (0%)
9	9, (42%)	8, (38%)	4, (19%)	0, (0%)	0, (0%)
10	6, (28%)	3 (14%)	9, (42%)	1, (4%)	1, (4%)
11	6, (28%)	4, (19%)	7,(33%	1, (4%)	2, (9%)
12	13, (61%)	4, (19%)	1, (9%)	3, (14%)	0, (0%)
13	14, (66%)	2, (9%)	3, (14%)	2, (9%)	0, (0%)
14	11, (52%)	2, (9%)	5, (23%)	3, (14%)	0, (0%)
15	10, (47%)	8, (38%)	2, (9%)	0, (0%)	1, (4%)
16	14, (66%)	5, (23%)	1, (4%)	1, (4%)	0, (0%)
17	5, (23%)	4, (19%)	8, (38%)	1, (4%)	3, (14%)

= raw data, ( ) % of responses