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Attitudes and Perceptions of Middle School Students Toward Cooperative Activities in Physical Education

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Abstract

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MA, Humboldt State University, 2000

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Physical education (PE) is recognized by public health officials as a medium capable of addressing various health-related behaviors, and middle school students perceptions and attitudes toward a cooperative PE curriculum have yet to be identified. This study sought to determine the perceptions and attitudes 10 middle school students have toward cooperative activities in PE class with the notion that the results would benefit both teachers and researchers. Two theories were used to guide this study: Bandura's social cognitive theory, and Harter's competence motivation theory. The research questions focused on identifying the attitudes and perceptions middle school students have toward cooperative activities in PE class and utilized a qualitative study with a case study approach. Focus groups, observations, and teacher interviews were data sources analyzed using open, axial, and selective coding. Triangulation of the data stemming from the three data sources supported the emergent theories that middle school students feel good participating in cooperative activities when they are done in small groups, there are chances to help others, and the activities provide an opportunity for all students to equally participate both physically and verbally. It is recommended that PE teachers, curriculum writers, and trainers of PE teachers consider cooperative activities when deciding how PE classes can be structured for middle school students. Implications for positive social change included empowering students to have more autonomy with their PE curriculum, which can lead to increased participation. Training PE teachers to effectively facilitate cooperative activities could provide students the opportunity to learn and build motor skill while learning experientially and benefiting mentally and physically.

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Dedication

I dedicate this dissertation to my family who have supported me along the way and in particular my deceased dad who taught me to finish things I start and to persevere through the hardest of times by combining both hard work and faith in myself.

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My sincere thanks to all those who have either helped with this study or been affected by it. Because of all these folks, I've been allowed to increase my knowledge in the area of health promotion and apply the knowledge to help students and teachers.

The Walden advisors, committee members, and librarians have all provided critical guidance through this long, arduous process. I offer great appreciation to my chair Dr. Jones who has been extremely responsive and patient in responding to all drafts and questions. My other committee member Dr. Hargiss also deserves special thanks and recognition for her consistent and helpful feedback and guidance.

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Chapter 1: Introduction to the Study

Physical education (PE) has been identified as one realm of a multistepped approach to combat the escalating prevalence of obesity in youth. Specifically, PE curriculum writers and teachers are being encouraged to alter games and teaching strategies to keep more students involved and moving (Centers for Disease Control and Prevention [CDC], 2009). Quality physical education programs have been identified as one of the most readily available tools for both promoting and improving physical activity levels in children and adolescents (Lafleur et al., 2013). Unfortunately, PE classes around the United States vary significantly in curriculum, frequency, teacher philosophy, and facilties and equipment. These variables along with age, gender, ethincity, and student attitude can impact how students perceive and participate in a PE class (Kahan & McKenzie, 2015). In order to gain some clarity around the potential a cooperative-based PE curriculum has to meet the physical needs of students and develop healthy, positive attitudes toward physical activity, a better understanding of their perceptions and attitudes are necessary (Kyndt et al., 2013).

Attitudes factor into many aspects of life on a daily basis and are constantly evolving and forming. Typically, a person's beliefs and experiences tend to shape their attitudes (Subramaniam & Silverman, 2007). The attitudes of middle school students can heavily influence the decisions they make during their school day and beyond (Mohammed & Mohammad, 2012). Developing positive attitudes at an early age toward physical education, appears to be paramount to whether students will enjoy and continue with any of the activities presented (Chen, Kim, & Gao, 2014; Culpepper, Tarr, &

Killion, 2011; Liu, Wang, & Xu, 2008; Stork & Sander, 2008; Subramaniam & Silverman, 2007).

With attitudes being ambiguous, difficult things to give a clear definition to, they have generated a fair amount of research (Barney, 2003; Mohammed & Mohammad, 2012; Rikard & Banville, 2006; Ryan, Fleming, & Maina, 2003; Stelzer, 2005). Ryan, Fleming, and Maina (2003) noted that an attitude can vary in strength and depend on the type of experience, positive or negative, one has had with a particular situation and how often the attitude is conveyed. Therefore, attitudes can be a group of positive or negative feelings felt toward a situation, object, person, or group. Reacting to these feelings can depict how a person interprets things and reveal their perspective (Bryan & Solomon, 2012). These feelings that shape students' attitudes are critical to how students choose to participate. Cox, Smith, and Williams, (2008) noted how students with positive attitudes toward physical activity tend to be more willing to try new activities than students with negative attitudes toward physical activity.

Developing positive attitudes toward physical activity is paramount for both elementary and middle school students, as there is a steady decline in activity after adolescence (Couturier, Chepko, & Coughlin, 2005; Kozub & Farmer, 2011; Zapata, Bryant, McDermott, & Hefelfinger, 2008). Since physical activity is imperative in helping students to remain healthy and combat the negative health effects of obesity, physical educators must ensure students develop positive, healthy attitudes toward physical activities. Around 17% of children between the ages of 2 and 19 are suffering from obesity (CDC, 2014). Obesity rates have increased in the adult population, too, and

current statistics now find over a third of adults to be obese (CDC, 2014). Because there is a trend that obese youth become obese adults (Lohrmann, YoussefAgha, & Jayawardene, 2014), curtailing that trend and understanding the significant role attitude plays in choosing to participate in physical activity should be a priority for all PE teachers.

Understanding how curriculum, class atmosphere, teacher attitude, and enjoyment help to shape student attitude can help teachers develop positive student attitude toward PE (Hill & Hannon, 2008; Liu, Wang, & Xu, 2008; Mohr, Townsend, & Pritchard, 2006; Subramaniam & Silverman, 2007; Yli-Piipari, Watt, Jaakkola, Liukkonen, & Nurmi, 2009). Conversely, teaching sport-related skills for short periods of time and placing an emphasis on competition can deter both participation and enjoyment and produce a feeling of boredom (Boyce, 2009). For example, teaching soccer skills for a short period of time and following it with a competitive game will not allow all students to acquire the necessary skills to play at the same level of those students who play competitively outside of school. Those less-skilled students could be placed in positions where they barely touch the ball and only watch the skilled players control the game. Competitive activities can hinder learning for some students by fostering the negative characteristics and behaviors associated with competition and when winners and losers are denoted (Hannnon & Ratliffe, 2004).

Cooperative activities, on the other hand, focus on team-oriented goals that can only be accomplished if all members learn and apply the necessary skills to achieve the objective (Casey, Dyson, & Campbell, 2009). Presenting cooperative activities to small

groups (3-5 students) that are structured by the teacher with the intent of having group members be responsible for helping one another and learning from each other's experiences allows for a supportive, inclusive group that makes its' members feel comfortable (Igel & Uruhart, 2012). Working together rather than against one another provides middle school students with the type of social support many of them seek. This support, in return, can allow students to communicate freely and have a positive experience learning new motor skills in a small group setting (Lafont, Proeres, & Vallet, 2007). When planning PE lessons, it's crucial for teachers to consider the social and emotional aspects that can either promote a positive or negative attitude toward the activity being presented.

Since not all students operate with the same cognitive, affective, or motor domains, aiming to meet the needs of all students requires teachers to recognize the type of activity and atmosphere that suits their needs. A less skilled student might be more hesitant to participate in a PE activity that requires skills he or she does not have; a skilled student will probably thrive and participate fully. Bernstein, Philips, and Silverman (2011) found that a student's skill level will impact their attitude toward the activities they engage in during PE. With the promotion of physical activity and physical fitness being central tenets of PE, ensuring students enjoy activities is a critical facet of developing positive attitudes.

The development of motor skills as also a key goal in PE, recognizing how one's skill level can impact both attitude and participation is vital. Solomon (2006) noted how an instructional climate in PE where mastering skills and personal improvement is

focused on more than outperforming others can promote favorable attitudes. When students improve their skills they tend to enjoy PE more and gain more confidence (Cherubini, 2009; Gao, Lee, Xiang, & Kosma 2011; Grasten, Jaakkola, Liukkonen, Watt, & Yli-Piipari, 2012, Liukkonen, Barkoukis, Watt, & Jaakkola, 2010; Pannekoek, Piek, & Hagger, 2013). The notion that enjoying a physical activity can lead to an increased interest in it tends to be the hope of many PE teachers (Aktop & Karahan, 2012; Morgan, 2008; Mouratidis, Vanteenkiste, Lens, & Auweele, 2009). Boyle-Holmes et al. (2010) noted that both motor skill level and perceived physical activity competence are positively associated with physical activity.

Background

There are both practical and theoretical reasons for carrying out this study. From a practical standpoint, discovering how a student's attitude and perception of cooperative activities effects participation can offer pertinent knowledge to PE teachers. With PE deemed as a national strategy to combat the obesity epidemic and capable of both promoting and increasing physical activity among youth (Healthy People 2020), understanding the type of curriculum that can accomplish this goal is vital. If students don't have positive attitudes toward the subject matter in PE they could be less apt to participate in physical activities. Recognizing how students feel about activities presented to them in PE class might help teachers plan more effective classes. It is clear, however, many PE teachers utilize teaching practices that are considered inappropriate and not utilitarian (Strand & Bender, 2011).

There have been myriad PE interventions created to try and deal with the obesity epidemic. Although the programs are designed with the intent on improving both health and fitness, there is a limited amount of research aimed at ensuring the curriculum is a good fit for the students it serves (Brezzo, Glave, Gray, & Lirgg, 2012; Chorney, 2011; Culpepper, Tarr, & Killion, 2011; Sallis et al. 2012). Although cooperative learning is well established and recognized as an effective learning method, it appears it has not been widely adopted (Constantinou, 2010). Identifying student attitude toward cooperative activities might help teachers understand how such activities can be utilized to develop students into life-long active participants.

From a theoretical perspective, this study highlighted the attitudes and perceptions middle school students have when participating in cooperative PE activities and aimed to understand how these activities might affect participation. Research recognizes the other variables that affect student participation in PE, and the theories behind these variables will also be explored. Variable such as curriculum, class atmosphere, gender, grade level, skill level, and ethnicity factor in to how a student perceives PE class (Bibik, Goodwin, & Orsega-Smith, 2007; Sollerhed, Ejlertsson, & Apitzsch,2005; Cox, et al., 2008; Liu, et al., 2008; Smith & St. Pierre, 2009; Solomon & Lee, 2008; Subramaniam & Silverman, 2007; Winter, 2009; Xiang, Solomon, & McBride, 2006; Zeng, Hipscher, Leung, 2011; Zhu, 2013). Recognizing these factors and understanding the roles they play in developing a student's attitude toward physical education can better allow teachers to plan activities that will meet the needs of all students.

The theory behind cooperative learning and its' effectiveness in the classroom has remained a constant. However, there has been a limited amount of research to determine how effective the methodology can be within the realm of PE (Constantinou, 2010). Assessing student attitude toward cooperative learning in PE has yet to occur. This piece of research can help to fill that gap and add to a body of research slowly being applied to PE. Understanding what type of activities and how these activities should be presented to students is paramount to an effective PE class and teacher. Improving student attitude toward physical activities may increase student enjoyment and promote a life-long interest in certain activities they are introduced to.

A cooperative learning climate emphasizes the teaching of interpersonal skills, positive interdependence, individual accountability, and group processing. The physical education climate that students encounter can influence how students react and participate in PE class (Dyson, 2014, Kahan, 2013, Wadsworth, Robinson, Rudisill, & Gell, 2013); that climate is impacted by how the teacher incorporates and emphasizes various instructional techniques. At a time when physical education curriculum is trying to both combat the obesity epidemic and meet the National Association for Sport and Physical Education standards, it is evident that students' attitudes toward PE activities is an important variable to understand (Leigh Bryan & Solomon, 2012). Investigating the attitudes of middle school students toward a cooperative-based PE unit (4-5 weeks) could help to create social change within curriculum writers, teachers, and students while also adding to a limited body of research on cooperative learning in PE.

Although cooperative-based climates are utilized in classroom environments, there is a shortage of research alluding to such climates being used in PE class (Casey, Dyson, & Campbell, 2009). In order to understand how students perceive and feel about a cooperative-based PE program, my study served as a jumping-off point for other researchers concerned about cooperative activities in PE. Whether or not students have positive attitudes towards cooperative activities, the findings of the study helped add to the body of research that has measured student attitudes toward physical education. Dyson (2014) noted the importance of developing positive attitudes in students toward physical activities and not simply focusing on their skill development. Adding instructional choices for students to choose from can help motivate, engage, and promote learning (Xiang, Gao, & McBride, 2011).

The National Association for Sport and Physical Education recognize a high-quality physical education program as one that includes the following components: (a) opportunity to learn, (b) meaningful content, and (c) appropriate instruction (Pritchard, McCollum, Sundal, & Colquit, 2014). Since cooperative learning has been deemed as an effective instructional model capable of having a positive effect on student learning (Igel & Uruhart, 2012), it could be argued that a cooperative PE unit could both benefit students and provide a different way to learn a sport or activity. Kyndt et al. (2013) noted that cooperative learning in a classroom environment has led to higher individual achievement than either competitive or individualistic efforts.

Although cooperative learning has been a well-defined, useful educational tool for some time (Kyndt et al., 2013), there is little research assessing its' effectiveness in PE

classes. This research can help educators adopt a cooperative approach to skill-based learning, meet the needs of more students, and develop students' interests in being active.

Problem Statement

While there is evidence that the type of curriculum presented in middle school physical education classes can influence student activity (Culpepper, Tarr, & Killion, 2011), there has been a shortage of research on how a cooperative approach to teaching PE can benefit students (Casey, Dyson, & Campbell, 2009). When activities are cooperative, one person in the group can achieve the goal and it will be positively correlated with its attainment by another group member. Unlike a cooperative environment, a competitive activity will actually prevent most participants from obtaining the goal. How, then, can physical education classes meet the needs of the broad range of participants' skill levels in a competitive environment and promote the type of physical activity levels necessary to help combat the obesity epidemic. Many studies suggested that physical education classes have the potential to positively impact students' growing attitudes, beliefs, and health-related behaviors in meaningful ways that could last a lifetime (Chomey, 2011; Mohr et al., 2006; Gao, 2006; Shen et al., 2009). At a time when obesity has been deemed the most prevalent risk factor for disease among youth (Lohrmann et al., 2014), it is critical to understand how students' attitudes and perceptions toward cooperative activities shape their involvement and desire to participate in PE class. This could help to alleviate the reduced activity levels seen in today's youth by promoting a supportive, inclusive way to participate in physical activity.

Nature of the Study

This research aimed to identify middle school students' attitudes and perceptions toward their participation in a cooperative-based PE unit. The importance of developing positive attitudes in youth toward physical activity has been deemed essential to helping them become active, healthy adults. In this study, participants experienced cooperative activities in PE and data was obtained from my own observations, focus groups, and formal interviews with the teacher. The focus groups were designed to answer the following research questions:

- What are the attitudes and perceptions of middle school students toward cooperative activities in physical education?

The following subset of questions were also answered:

- How do middle school students perceive cooperative learning activities in physical education class?
- How do middle school students feel when participating in cooperative activities in physical education class?

Purpose of the Study

The qualitative study conducted utilized a case study design and aimed to determine whether cooperative education in PE class affect students' attitudes and perceptions toward physical activity. The purpose of this study was to investigate the attitude and perceptions of students toward cooperative activities in PE class. After conducting a meta-analysis of the effects of cooperative learning, Kyndt et al. (2013) found a need to base future research on cooperative learning on the attitudes and

perceptions of students toward cooperative activities. Typically, skilled students enjoy physical education class, but that is not always the case for those who are either less skilled or less experienced in the activity being presented (Smith & St. Pierre, 2009). A cooperative approach to teaching physical education was chosen because (a) cooperative learning has been recognized worldwide as an effective educational tool and (b) it is a user-friendly approach to teaching PE that allows all participants to learn from and support one another while empowering students to take ownership of their own learning. As enjoyment has been identified as a key motivator for children to participate in physical activity, a cooperative approach allows students to be guided and not lectured to, which tends to lead itself to a more dynamic, enjoyable learning process. The type of curriculum chosen in PE class and how it is presented are both paramount to encouraging and promoting long-term physical activity, and cooperative education can lead itself towards the creation of an enjoyable class atmosphere. It has been suggested that schools' role in fighting obesity include noncompetitive programs that best meet the needs of more students (The World Health Organization [WHO], 2016).

Research Question

For this case study, the following central research question was posed:

What are the attitudes and perceptions of middle school students toward cooperative activities in physical education?

Following are a subset of questions:

1. How do middle school students perceive cooperative learning activities in physical education class?

2. How do middle school students feel when participating in cooperative activities in physical education class?

Theoretical Framework

The theories that guided this study include social cognitive theory (SCT), and the competence-motivation theory (CMT). Both theories have been utilized in physical activity environments associated with youth that aimed to help make sense of the behaviors seen in young children and teens.

The SCT stems from the work of Bandura in 1977 and recognizes that the three components comprising the theory do not work independently of each other but more as a give-and-take. Young et al. (2014) found that SCT was an appropriate framework to understand physical activity levels in youth. Specifically, self-efficacy and goals are two of the constructs within SCT seen as having direct ties to how youth approach physical activity. The SCT process aligns with the notion that when students are empowered to control the physical activities they are involved in, they tend to feel better about both their participation and associated benefits with the activity (Kilty, 2006, p. 12).

Harter's CMT developed in 1978 has also been applied when trying to explain physical activity levels in youth. Specifically, the CMT asserts physical activity levels can increase when a person's perception of competence improves, and in return, provides them with more motivation to perform physical activities. Mandigo and Holt (2006) noted how youth who encounter success in environments that provide an appropriate level of challenge can develop some intrinsic motivation to be physically active. The CMT aligns well with cooperative learning since it relies on a supportive environment

and appropriate challenges to help build the confidence of participants. A socially supportive environment is a critical determinant of behavior in the CMT (Eather et al., 2013), and cooperative learning can not occur if a unsupportive classroom exists.

Significance of the Study

Developing both healthy attitudes and behaviors in children and ensuring they have fun while doing so has been identified as factors capable of improving the physical well-being of students (Chen, 2011). Since schools serve as an arena to reach and serve young people outside the traditional healthcare setting, they fall within the public health domain and are able to address student health on numerous fronts (Healthy People, 2020). PE class is a medium in which health-related attitudes and behaviors can be addressed, developed, and used to combat the obesity epidemic. However, recognizing the type of PE pedagogy capable of developing healthy attitudes and behaviors toward PE class and pinpointing the appropriate activities to both promote these behaviors and meet the broad range of students' abilities is not easily identified (Cox et al., 2009). PE curriculum and its presentation can either leave kids excited to both move and develop skills or with a feeling that physical activity is not for them (Kahan & McKenzie, 2015). Because a cooperative learning approach aims to maximize the engagement of all students, using such a methodology could lead to an increase in participation and spark more interest in physical activity from the students. Explaining the importance of cooperative learning, Slavin wrote:

Cooperative structures create a situation in which the only way group members can attain their own personal goals is if the group is successful. To meet their personal

goals, group members must help their group mates to do what helps the group succeed, and perhaps more important, encourage their group mates to exert maximum effort (as cited in Metzler, 2011, p.236).

Bryan and Solomon (2012) indicated that physical education classes can help develop both positive attitudes and intrinsic motivation in middle school students as long as the focus is on learning and improvement. However, the significant prevalence of PE curriculum based on sport and team games appears to exclude, rather than include, some students from both learning and playing (Medcalf, Marshall, Hardman, & Visser, 2011).

With a growing trend for more variation in physical education curriculum, middle school students have the possibility to develop ownership and a greater sense of empowerment when participating in an environment that does not stress winning (Subramaniam & Silverman, 2007). Smith and St. Pierre (2009) noted that student enjoyment is one of the most important variables that help to determine ones' participation level in PE class.

Cooperative learning in PE can increase student enjoyment within the class and allow students to internalize their own learning while applying the principles being taught (Hannon & Ratliffe, 2004). Specifically, Dyson (2005) listed a number of other benefits for students:

- Improved social reasoning.
- Increased interpersonal skills.
- Higher rates of active participation.
- Improved motor skills and game strategies.

- Increased tendency to help others improve their skills.
- Increased self-responsibility for learning.
- Increased willingness to hold each student accountable (in teams).

Although cooperative learning is a valuable alternative to direct instruction, it requires a significant amount of research, practice, and organization from the teacher, and at this point in time, there has been a limited amount of studies completed that tie cooperative learning and physical education together (Dyson, Linehan, & Hastie, 2010). The goal of this study was to add to the body of research that examines cooperative learning and bring to light how students perceive and feel about the cooperative approach in PE. Once student attitude toward a cooperative-based PE is determined, there could be opportunities to utilize cooperative PE to help students develop healthy and joyful attitudes toward physical activities and as a result, increase physical activity levels.

Definition of Terms

Cooperative Learning: An instructional model in which students work together in small, structured, heterogeneous groups to complete group tasks, and in which group members help each other learn while achieving group goals (Bradford, Hickson, & Evaniew, 2014).

Interpersonal skills: The ability to communicate effectively with one another (Constantinou, 2010).

Positive Interdependence: The success of one student should be positively related to the success of the other students (Constantinou, 2010).

Individual Accountability: Each student is held accountable to do their part of the group work (Kyndt, et al., 2013).

Group Processing: Group members regularly discuss and assess which actions are effective for achieving a stated goal (Kyndt, et al., 2013).

Assumptions

It is believed that the students involved in the study gave honest feedback when participating in the focus groups. It is also assumed that the students did not alter their behavior when being observed by this researcher. These two assumptions are necessary in order to conduct the proposed study.

Limitations

The population is limited to middle school students attending a private school. Because of these limitations, some findings may not be generalizable to other areas and populations. The students might have wanted to please me by giving positive answers to questions, which is a factor that could threaten the internal validity of the study (Houghton, Casey, Shaw, & Murphy, 2012). Both triangulation and member checking will be utilized to improve validity.

Delimitations

In this study, I hoped to assess the attitudes and perceptions of middle school students toward cooperative activities in PE. Similar studies are necessary in public schools to determine students' attitudes toward cooperative activities in PE.

Scope of the Study

The study was conducted with middle school students who were between the ages of 11-12 and attending a private school in San Francisco. The students' perceptions and attitudes of a cooperative-based PE unit can help to add to the growing body of research that is investigating cooperative learning in PE class and begin the investigation into how public school students might interpret such activities.

Summary

Cooperative learning has the potential to be an effective teaching modality in PE (Casey, Dyson, & Campbell, 2009). With an emphasis on positive interdependence and every group member succeeding, cooperative learning enables students to learn from their experiences, but also from their peers they are sharing the educational experience with. Metzler (201, p. 233) noted that cooperative learning does provide a supportive environment if the model is facilitated correctly. Students can feel the support from both their peers and teacher when cooperative learning is utilized, which is different from a competitive environment where students are competing against one another. If students have the support from their peers and teacher, they might be more willing to participate in the activities presented in PE class and as a result, develop healthy attitudes toward physical activity. Physical activity is an essential aspect of developing healthy students and improving health outcomes in the current generation of children and teens. Being physically active has been deemed as a key piece in the public health fight against the obesity epidemic that warrants additional research (Healthy people 2020). Although physical education classes are capable of promoting physical activity, research that

identifies how students participate, internalize, and apply the various curriculums presented to them are necessary (Lafleur, et al., 2013).

The literature review in Chapter 2 presents details of cooperative learning and the variables associated with it. The literature revealed the limitation of a focus on cooperative learning within the realm of PE. In Chapter 3, I described the design of the research using a qualitative case study methodology. Chapter 4 outlines the results of the study from the field notes of my personal observations of both participants and teacher as well as the results from the student focus groups and formal interviews with the teacher. In Chapter 5, I explained in detail the findings of the study.

Chapter 2: Literature Review

Introduction

Increasing the physical activity levels in youth in an effort to combat the obesity epidemic is one of the keys to reversing current trends. Currently, upwards of 80% of youth do not get enough aerobic physical activity (Healthy People 2020). Although the obeisty epidemic is multifaceted and includes such variables as diet, socioeconomic status, environemental influences, race, and level of education, physical activity is the variable that can be addressed in PE class. Piercy et al. (2015) noted that public health officials recognize PE class as an arena in which students' physical activity levels and attitudes toward physical activity can be improved upon when the right curriculum is used. Specifically, public health officials have been called upon to support PE teachers through the dissemination of research findings, trainings, and various instructional models that meet the needs of all students (Piercy et al., 2015). Public health officials have also suggested PE curriculum aim to increase students' moderate-to-vigorous physical activity (MVPA) levels to 50% of class time (Kahan & McKenzie, 2015). Researchers have found most PE curriculum falls short of this mark, and students in PE class tend to average about 27% in MVPA at the middle school level (Fairclough & Stratton, 2006). With PE teachers aiming to achieve the many objectives associated with the subject, it can be difficult for them to identify and apply the appropriate curriculum that will meet the needs of all students and ensure students sustain a MVPA level for half of the class (Lafleur et al., 2013). It is clear the type of curriculum presented to students can depict their participation level, interactions with one another, and what they learn

(Chen et al., 2012); thus, it could be argued that curriculum design is the most important aspect of a PE class.

Because of the many objectives and factors associated with teaching a PE class, this researcher aimed to investigate the various variables associated with PE (e.g., student attitude, race, gender, skill level, teacher behavior, and curriculum), in order to identify how students perceive and engage in a cooperative-based PE curriculum. The literature search also included how public health has sought to utilize PE to improve physical activity levels in school-aged children. Electronic databases were utilized to research PE and included ProQuest Central, Academic Search Premier, Eric, Education Research Complete, and various reference sections of reviewed articles. Databases were searched with the following keywords: *physical education, cooperative education, physical activity, student activity, motivation, attitude, middle school students, physical education curriculum, public health, social cognitive theory, and competence-motivation theory.*

Since physical education is a key component to increasing physical activity levels in youths, it is necessary to identify what type of activities will impact these levels, promote a supportive environment, and ensure all students have equal chances to participate; for example, structuring a relay race with overweight students in the class will only negatively impact how those students perceive PE class and physical activities (Cherubini, 2009). The purpose of this study was to shed some light on how students in a cooperative-based PE class feel about their experiences, what and how they learned, and the environment in which it all occurred. Cooperative-based curriculum in PE stresses working together to accomplish set goals, which are done in either pairs or in groups

consisting of 10 or fewer students. For this study, the study group consists of 18-19 seventh grade students, who attend a private school in San Francisco and are used to participating in a cooperative-based PE curriculum.

Theoretical Framework

The theories that guided this study include social cognitive theory (SCT), and the competence-motivation theory (CMT). Both theories have been utilized in physical activity environments associated with youth that aimed to help make sense of the behaviors seen in young children and teens. Eather et al. (2103) stated the importance of both theories when trying to define how physical activity levels can be predicted by self-efficacy, social and environmental support, and enjoyment.

The work of Albert Bandura allowed for the emergence of the SCT to posit that learning occurs in a social context and that much of what is learned is done through observation. There are several assumptions associated with the social cognitive theory and are as follows:

- People learn by observing others.
- Learning is an internal process that might or might not lead to a behavior.
- People set goals for themselves and alter their behavior according to these goals.
- People eventually regulate their own learning and behaviors.
- Reinforcement and punishment have indirect effects on learning.

The above mentioned assumptions blend together the triadic reciprocal causation among environmental factors, cognitive factors, and human behavior that exists in most learning

environments (Huang & Chiu, 2006). Specifically, it is believed that learning behaviors and outcomes are impacted by peer encouragement, student self-efficacy, and the learning atmosphere (Eather, Morgan, & Lubans, 2013).

From a meta-analysis aimed at explaining SCT's relation to physical activity, Young et al., (2014) found the SCT model to be an applicable framework capable of helping to explain physical activity behaviors. The study also recognized the connection between programs aimed at increasing physical activity levels and enhancing participants' self-efficacy and the importance of coupling those goals with goal setting, planning, and self-monitoring (Young et al., 2014). It has been suggested that PE teachers have an opportunity to use SCT attributes to boost student's physical activity levels with the use of non-competitive activities (Winter, 2009). Activities that stress helping and learning from others, as well as how well one participates in such activities tend to align with the SCT. With motivation being a significant contributor to how students participate in PE class, the SCT presumes there is a relationship between the three aspects of the SCT and that there is neither equality amongst them nor a state of stagnation in any of them (Kamla et al., 2006).

Cooperative learning aims to intentionally utilize Bandura's theory of SCT to promote the growth of self-efficacy in students (Kilty, 2006, p. 13). Huang and Chiu (2006) also recognized how self-efficacy is significantly influenced by both peer support and teacher encouragement; one of the foundations of cooperative learning is the positive feedback and encouragement that should be provided by both peers and teachers. Therefore, cooperative learning and the SCT are entwined and should be considered

together when trying to understand how cooperative learning affects student participation and learning.

The second theory that helped to guide this study is Harter's CMT. This theory postulates that perception of mastery of an activity serves as a reward and motivates and promotes enjoyment of a task. Because the child or group can enjoy a task, a continued effort to increase the level of competence can ensue (Zou & Yang, 2012). Specifically, the four aspects of the theory are as follows:

- The degree of success experienced by the student.
- The level of task difficulty.
- The feedback received.
- Student perception of control in a situation

These four aspects can be controlled by the teacher who is facilitating a cooperative activity, and most importantly, by ensuring student success through appropriate challenges teachers can enhance intrinsic motivation within the student (Mandigo & Holt, 2006).

Optimal challenge lies at the heart of the CMT and seen as critical to both boost students' perceptions of competence and their intrinsic motivation to participate in the activities being presented. Additionally, social support has been deemed as a key determinant of behavior in the CMT model and one that can be positively affected by creating a supportive classroom environment that includes both helpful, caring peers and teachers (Eather et al., 2013). Gagen and Getchell (2004) found that when a task and supportive environment are made suitable for individuals, an optimal opportunity to learn

and develop is produced. Once again, both of these characteristics are visible within a cooperative PE program.

A key finding to surface from research centering on the CMT model is one that also aligns with cooperative PE program. When trying to identify how students identify optimal challenge in physical education class, Mandigo and Holt (2006) found the need for students to have some autonomy to alter the challenge level and feel empowered. Cooperative activities in physical education are meant to provide small groups with autonomy, in order to both solve problems and accomplish assigned tasks in a manner that best suits the groups' needs. The ability to modify activities and support others to achieve at a level they are comfortable with aligns the CMT with cooperative activities.

During this study, the experienced teacher facilitating the classes had experience teaching both cooperative and competitive activities and understood how to structure cooperative PE classes.

Role of Public Health in Physical Education

Public health officials have recognized physical education as a broad-reaching medium to address health-related behaviors for the past 25 years (Sallis & McKenzie, 1991). At this point in time, many public health groups have beckoned school physical education programs to focus on promoting active lifestyles, increasing student activity levels, and empowering students, regardless of ability, to be life-long active participants (Salis et al., 2012). The objectives being put forth by public health officials are not easily accomplished if PE programs must also remain focused on developing motor skills and the social and emotional characteristics of students. Curriculum, then, becomes of the

utmost importance and will need to meet the needs of the typical wide-range of abilities found in PE classes. Hence, public health officials have recognized how curriculum writers need to generate creative, utilitarian PE curriculum capable of promoting active classes that can be evaluated (McKenzie & Lounsbery, 2013). Solomon (2015) noted it is vital to acknowledge curriculum is an aid to help teachers create a supportive learning environment that facilitates student engagement and cultivates motivation to learn. Combining appropriate, effective curriculum with a learning climate that is physically and emotionally safe can impact how students participate and learn in PE classes (Liukkonen et al., 2010).

Student achievement is usually the barometer by which effective teaching is measured, but as noted by McKenzie and Lounsbery (2013), curriculum and teacher effectiveness need to be situated within a public health framework in order to evaluate the process. Effective teaching characteristics have been identified by research, but there has been a lack of consideration for what teachers are presenting and how the process either supports or impedes PE's ability to play a part in achieving public health goals (McKenzie & Lounsbery, 2013). It is clear not all PE programs are in sync with public health objectives. A PE program aiming to present students with enjoyable opportunities to be active, chances to learn and apply both motor and behavioral skills, and the encouragement to engage now and in the future in physical activities can be aligned with public health goals. It is widely understood that cooperative learning aims to provide an active environment in which skills are taught and applied with both peer and teacher feedback and then followed by the encouragement to demonstrate what was learned.

Attitude

Understanding students' attitudes when they are participating in physical activities is critical to promoting current and lifelong physical activity, and recognizing students' various attitudes can allows teachers to identify why some students achieve more than others (Zeng, Hipscher, & Leung, 2011). One's attitude toward a subject can play a role in the effort a student puts forth. Attitude, itself, has been studied, defined, and measured in almost all fields of study (Philips & Silverman, 2012), and continues to be addressed (Liu, Wang, & Xu, 2008), as the variables associated with it makes it an ambiguous subject.

Attitudes are an integral aspect of everyday life and stems from the views and beliefs people have about specific situations, others, or things. People can express their attitudes through words, behaviors, or from a lack of action or words. Therefore, attitude is the extent to which a person likes or does not like something (Phillips & Silverman, 2012). Understanding how attitudes are formed and how they can range from negative to positive can help physical educators create engaging, rewarding environments (Ryan, Flemin, & Maina, 2003). Teacher insight into how both curriculum and class atmosphere are interpreted by students can be seen as an invaluable tool for physical educators. Chorney (2009) noted how PE teachers can positively impact student learning by interacting with students and deciphering how students feel about the environment and curriculum they are exposed to.

Attitude Research in Physical Education

There is no shortage of research alluding to how attitude effects participation in PE programs. Understanding why a student with a good attitude will have a positive perspective with their PE experience, and why a student with a bad attitude will have a negative experience in PE class seems to be common knowledge. Couturier, Chepk, and Coughlin (2005) found that students enjoy PE classes when the curriculum is relevant to their lives, is differentiated, combines both competitive and cooperative activities, and provides opportunities for fun and challenge. Attitudes toward PE class, however, is determined by more factors than just curriculum. Student motivation, competence, enjoyment, perception of curriculum, and comfort level in class can all influence students' attitudes.

Motivation

The self-efficacy theory considers a student's efficacious beliefs when he or she takes upon specific tasks; self-efficacy motivation is a function of efficacious information received by the individual. The efficacious information can stem from numerous sources (Bandura, 1986 p.45). Previous performance, vicarious experience, verbal persuasion, and physiological state can all alter the motivation a student puts toward a task (Chen, Chen, & Zhu, 2012).

Previous performance, whether successful or unsuccessful, can impact how a student welcomes a task. Although success builds belief in one's personal efficacy, if the success comes too easily, it can mean less and lead to frustration when more difficult

challenges are encountered (Panicucci, 2008, p.4). Physical activities should require the appropriate amount of challenge, including both failure and success.

Vicarious experience, which can be interpreted as role modeling, is a powerful motivator for students in physical education class (Barr-Anderson, et al., 2008; Cherubini, 2009; Cox, Duncheon, & McDavid, 2009; Gao, Lee, Xiang, & Kosma, 2011). It is important to remember how heavily influenced youth are by their peers and by their desire to both please them and gain acceptance (Paniucci, 2008, p.5). Peer encouragement and modeling is a key characteristic built into cooperative activities.

Positive verbal persuasion in physical education settings has the potential to increase a participant's self-efficacy on the activity they are being encouraged to perform (Chen, Chen, & Zhu, 2012; Huang & Chiu, 2006). Encouragement in PE classes should come from both teachers and peers. In fact, "positive verbal encouragement and the use of belief statements have a positive effect on student behavior" (Panicucci, 2008, p.5). Conversely, it can be argued that negative comments have no place in an academic setting and can have a tendency to impede students' efforts. Cooperative activities, by nature, tend to limit the negative experiences felt in PE class (Hannon & Ratliffe, 2004).

The physiological state of a student in a PE setting can either nurture a joyful experience or foster a negative one (Hansen & Parker, 2009). Both emotional and physical safe environments to learn and take chances are critical aspects for the development of middle school students. It is suggested that PE teachers provide students with safe opportunities to encounter stressful environments and the chance to learn about their reactions to stress (Panicucci, 2008, p.6).

Enjoying activities in PE classes can create a two-fold outcome: students can develop a positive attitude toward the class and an optimistic perspective toward the development of their motor skills (Subramaniam & Silverman, 2007). Enjoyment must be seen as a vital aspect of every student's PE experience. The student not enjoying their experience in PE class is at risk for both developing a negative attitude toward the subject and their motor skills at a slower, less efficient rate than the other students enjoying the class (France, Moosbrugger, & Brockmeyer, 2011; Phillips & Silverman, 2012).

Curriculum

Most middle school curricular models aim to align with the National Association for Sport and Physical Education (NASPE, 2009),

> The standards define a physically educated person as one who: (a) demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities. (b) demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities, (c) participates regularly in physical activity, (d) achieves and maintains a health-enhancing level of physical fitness, (e) exhibits responsible personal and social behaviors that respects self and others in physical activity settings, and (f) values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction (NASPE, 2009, p.13)

Curriculum models designed to reach the NASPE standards should be planned sequential lessons presented to students by trained PE teachers (Corbin & McKenzie, 2008).

It has been established that the curriculum content is a vital factor in developing either positive or negative attitudes toward physical education class (Barr-Anderson et al., 2008; Graham, 2008; Hill & Hannon, 2008; Kulinna, 2008). Therefore, if students enjoy the curriculum they will be more apt to participate in the activities and learn the skills being both taught and practiced (Graham, 2008). In order for students to enjoy the curriculum, however, there needs to be a sense that the activities being performed are both relevant and beneficial. In physical education class, Bryan and Solomon (2012) reported the need for teachers to offer various activities aimed at providing an engaging, fulfilling atmosphere where students can experience success. Conversely, a curriculum offering little variation, and monotonous activities can lead to students becoming disengaged (Baghurst, 2007; Hill & Hannon, 2008; Courtier, Chepko, & Coughlin, 2005; Liu, Wang, & Xu, 2008; Sheehy, 2006; Zeng, Hipscher, & Leung, 2011). Although repetition is seen as one method for ingraining skills or knowledge, physical education teachers, in general, need to pay close attention to how this method can negatively impact both students' enjoyment and engagement.

A dynamic, varied PE curriculum that allows students some autonomy, feedback, and ability to move at their own pace in a safe, rewarding environment allows them to enjoy activities in physical education classes (Medcalf et al., 2011; Ryan, Flemin, & Maina, 2003; Xiang, Solmon, & McBride, 2006). Cooperative learning in PE can occur in small, structured heterogenous groups of students that ensure a mix of ability, gender, and race. This, in return, offers students an opportunity to get comfortable with one

another and learn from each other in a fun, supportive environment (Casey, Dyson, & Campbell, 2009).

Teacher Behavior

Student participation in physical activities can be either positively or negatively affected by the physical education instructor (Gold et al., 2012; Hein et al., 2012; Stelzer, 2005). With this knowledge, it's important for teachers to realize how they can guide students to develop a positive attitude toward physical activity. A PE teacher who stresses winning, as oppose to mastering skills, has the potential to alienate some students (Chen, Chen, & Zhu, 2012; Chorney, 2009). Conversely, a teacher who emphasizes both mastery of skill and enjoyment, while demonstrating care and consideration for all students, has the potential to help students enjoy physical activity (Casey, Dyson, & Campbell, 2009). It is obvious, then, how a teacher structures their PE class determines how students respond to the activities presented.

Guiding students with a planned sequential curriculum that allows them to move at their own pace and be assessed periodically can motivate them to become engaged participants (Bulger, Housner, & Lee, 2008). In order to sustain such a curriculum, teachers must ensure they arrive at each class with a detailed plan capable of allowing them to focus on student learning. Specifically, research has identified the following facets as effective teaching characteristics:

1. Clear objectives and content covered.
2. Well organized and appropriate expectations.
3. Meaningful tasks and high rates of success.

4. Smooth transitions and low rates of management time
5. Appropriate guidance and active supervision
6. High rates of student-engaged time and low rates in student waiting time.
7. Teacher's enthusiasm and equitable support (Pangrazi, 2007).

Understanding and practicing the characteristics of an effective PE teacher can, therefore, help a teacher increase student enjoyment and participation; careful planning that aims to achieve the characteristics of a successful physical education teacher should be standard practice.

Classroom Atmosphere

A classroom environment in which students are both confident and comfortable can foster more positive student attitudes toward the subject being taught (Barr-Anderson, et al., 2008; Crombie, Brunet, & Sabiston, 2011; Liukkonen, Watt, Barkoukis, & Jaakkola, 2010; Subramanian & Silverman, 2007; Zhu, 2013). A positive attitude is critical for students to have and can allow them to feel more connected both socially and to the information being taught. Having a social connection allows students to work cooperatively and take more control of the learning process (Casey, Dyson, & Campbell, 2009). Additionally, the atmosphere that nurtures student connections often creates a more productive work environment, capable of promoting equal participation (Kyndt et al., 2013).

The positive student attitude that can develop from an atmosphere promoting confidence, support, and comfort also helps to build a sense of community, in which students feel good about taking the necessary emotional and physical risks required to

fail, achieve, and learn (Metzler, 2013, p.230). Student comfort is paramount to participation in physical education classes; a high level of environmental comfort grows even more important as students enter the middle and high school level. The cooperative classroom environment has been described as capable of allowing students to acquire skills, develop competence in fitness, and learn how to both positively interact and support one another (Cherubini, 2009; Dyson & Grineski, 2001).

The classroom environment in PE settings can be the opposite of cooperative. Competitive activities in middle school physical education classes are commonly used and can deter some students from participating Barkoukis, Koidon, Tsobatzoudis, & Groutos, 2012; Gao,2006; Grasten, Liukkonen, Watt, & Yli-Piipari, 2012). Since a competitive atmosphere can be perceived as performance-based, less-skilled students can encounter less enjoyment, boredom and negative attitudes toward PE (Philips, 2012). Clearly, a competitive environment in PE settings does not always promote the type of positive, supportive attitude that welcomes all students to participate.

Factors That Affect Student Attitude

Student attitude towards PE class has been researched extensively and explored through the following variables: (a) gender, (b) grade level, (c) ethnicity, (d) curriculum, and (e) teacher. An interest in the female perspective and their involvement in physical education classes have generated a solid understanding of the different viewpoints girls and boys have (Cairney, et al., 2012; Constantinou, Manson, & Silverman, 2009, Gibbons, 2008). The difference in attitudes between middle and high school students has also been identified with research and seen as vital for understanding how to increase

participation in physical activity (Hill & Hannon, 2008; Smith & St. Pierre, 2009; Subramaniam & Silverman, 2007, & Zeng, Hipscher, & Leung, 2011). Finally, ones' ethnicity, teacher, and the curriculum presented to them have been identified as other critical factors that aid in determining a student's attitude in PE class.

Gender

Gender can be an influential aspect for how students' attitudes develop. Since attitude can affect how students approach the learning process, it is vital to understand what role gender plays in this development. Girls, in general, tend to demonstrate a decline in participation of physical activities from childhood to adolescence (Cairner, et al., 2012; Constantinou, Manson, & Silverman, 2009 & Crombie, Brunet, & Sabiston, 2011, & Gibbons, 2008). With a female decline in participation starting in the middle school years and continuing into high school, it's important for physical education teachers to create an atmosphere promoting female participation. Females' perceptions and experiences in physical education classes, however, can be positive, as long as the environment is conducive to the needs of girls. In order to facilitate the positive involvement for girls, recent research has identified the following features to make PE classes more user-friendly for girls:

1. physically active students in class
2. noncompetitive activities are offered
3. opportunities for gender separation are offered
4. an emphasis on lifelong physical activity
5. a fun and enjoyable class

6. appropriate curriculum and instructional methods
7. appropriate behavioral skills both taught and stressed (Gibbons, Temple, & Humbert, 2011)

Coeducational PE classes and non-coed classes can have a different feel for both middle school girls and boys. Girls have identified a sense of frustration when competitive activities are used in PE and boys are allowed to use their aggressive behavior to dominate (Davis & Nicaise, 2011;Gibbons & Hunter, 2008, & Zaravigka &Pantazis, 2012) Once again, understanding how each gender reacts to the array of situations presented in physical education settings is paramount to promoting a lifetime of physical activity. While girls tend to believe they cooperate more effectively than boys, boys feel girls would rather be social and not try as hard as they do (Ryan, Fleming, & Maina, 2003). Both of these factors play a part in how the two genders interact with one another; interactions alone are a powerful component for how girls' attitudes toward physical education are developed. Gibbons (2008) found that a significant amount of girls' physical participation is influenced by their interactions with the boys in their class. Recognizing when these interactions and other aspects of class are impacting girls' participation is essential to ensuring girls consistently have positive experiences with physical activities. Gibbons and Humbert (2008) found that positive or negative experiences in PE class can begin to develop either favorable or unfavorable attitudes toward physical activity in girls as early as the age of 10. Ensuring girls maintain an active lifestyle, then, should be a focus for those teaching both adolescents and teens.

Grade Level

Elementary age students' attitude toward physical education is an active facet of research aiming to understand how to increase physical activity in school-aged children (Graham, 2008; Graser, Sampson, Pennington, & Prusak, 2011, & Kretchmar, 2008). These students, in general, tend to have a positive attitude toward physical activities and find delight in movement (Kretchmar, 2008). Although the propensity to move is ingrained in elementary school children, the PE setting can still help to either promote or suppress student participation. Graham (2008) noted that a focus on mastering task rather than one that emphasizes competition and performing better than others can help children maintain a more positive, optimistic attitude. In a cooperative-based PE setting students are asked to focus on trust, teamwork, and cooperation, while trying to master group and individual goals without comparing themselves with others in the class. Conversely, a PE program emphasizing competition and athletic games can fail to promote active engagement from elementary students (Solomon, 2006).

Entering middle school years with a positive attitude toward PE seems critical, since as found by Bauman, et al., (2009), participation in physical activity declines as children progress through adolescence. During these years, the class atmosphere, once again, has been identified as paramount to increasing participation rates. Bryan and Solomon (2012) found that seventh and eighth grade students maintained a positive attitude for both the usefulness and enjoyment of PE when the class was task-oriented. A task-oriented climate allows students to progress at their own pace in small, supportive groups; this atmosphere is more cooperative than competitive.

During the middle school years, students tend to seek more independence, and this is also visible in PE, where they enjoy a certain level of autonomy and the opportunity to choose to participate in physical activities that most interest them (Bryan & Solomon, 2012). Additionally, middle school students' attitudes are also affected by the social interactions, enjoyment, and health promoting factors of the activities presented to them (Liu, Wang, & Xu, 2008). A dynamic, varied curriculum needs to be presented to middle school students to encourage both their participation and enjoyment. The promotion of lifelong physical activity has become the primary goal for middle school PE, and reversing the trend of declining physical activity in middle and high school students relies upon changing the attitudes of this group.

Many states only require one year of PE in high school, yet as found by Zeng, Hipscher, & Leung (2011), both males and females have positive attitudes toward their PE classes. With only Illinois, Hawaii, Massachusetts, Misssippi, New York, and Vermont requiring PE in every grade from Kindergarten through high school (National Association for Sport and Physical Education, 2012), high schools are missing an opportunity to promote and provide positive experiences to be physically active. Strand and Bender (2011) found that a diverse high school curriculum might increase physical activity levels in young adults. Students' varying interests and desires for autonomy in PE surface during the middle school years and continue into high school. Therefore, it's important for high school PE programs to understand how to combine meaningful curriculum with a climate conducive to teaching and motivating students to be physically active.

Ethnicity

One's ethnicity involves a subgroup of a population that is distinguished by their sharing of a common history, characteristics, language, and customs. Ethnic group values also may affect a student's attitude toward physical education (Wonseok & Cheyator-Thompson, 2012). It's difficult to argue that ethnicity does not play a part in ones' physical activity levels. In California alone, 46.2% of Hispanics or Latinos, 39.3% of African Americans, 26.9% of Whites, 23.1% of Asians, and 32.7% of Pacific Islanders have children suffering from obesity (California Center for Public Health Advocacy, 2013). Understanding how ones' cultural heritage, experiences, and perceptions impact their participations and attitudes in PE classes can help teachers plan a curriculum to meet their needs (Dauenhauer & Keating, 2011).

Teacher

Research studies have indicated that the class environment and how teachers arrange a class in physical education can directly impact how a student experiences the class (Chen, Chen, & Zhu, 2012; Cox, Duncheon, & McDavid, 2009; Moore, Johnson, & Thornton, 2013; Shen et al., 2009; Halvari, Skjesol & Bagoien, 2011). Therefore, teachers can either positively or negatively affect the student experience in PE class (Moreno et al., 2010). Connecting with students in an authentic, caring manner appears to communicate to students that the PE atmosphere stresses both physical and mental safety (Chorney, 2009). How a student feels about the teacher directly correlates with that student's attitude toward physical education (Chen, 2011; Cox, Duncheon, & McDavid, 2009; Shen et al., 2009). If a student feels a connection with the teacher and has a sense

of belonging, the student might have a better attitude toward PE (Subramaniam & Silverman, 2007).

Although a caring, safe environment can help students develop more favorable attitudes toward PE, teachers can be a seen as a major contributor to how motivated students in their classes are. The role as a motivator, however, does change as students move from elementary to middle school (Chen, Chen, & Zhu, 2012). Studies have shown that students tend to rely on the teacher to motivate them at an early age, but as students enter into their middle and high school years, they seek more autonomy and rely less on the teacher to motivate them (Chen, Chen, & Zhu, 2012; Halvari, Skjesol, & Bagoies, 2011; Subramaniam & Silverman, 2007; Vlachopoulos, Katartzi, & Kontu, 2013). Culpepper, Tarr, and Killion, 2011, noted that creating a motivational climate for young students requires teachers to present the right curriculum and with the proper focus. Teachers can present activities that focus on mastery of skill through cooperation or competition. Within these activities, teachers can structure them to either celebrate winning or team collaboration, effort, and communication. How an activity is both presented and structured in PE class can affect the students' experience (Casey, Dyson, & Campbell, 2009; Chen & Ennis, 2004; Cherubini, 2009; Chorney, 2009). How activities are chosen and presented, then, play an important role in how students' interpret the subject matter.

When teachers present PE activities, they can do so in a well prepared, structured fashion that reveals careful planning or in an unorganized manner that exhibits a lack of planning. Either way, teacher planning can impact a student's attitude toward PE class

(Barkoukis et al., 2012; Quay & Peters, 2008). Careful, intentional planning can allow PE teachers to meet the majority of students' needs and provide engaging activities (Beighle & Erwin, 2013; Grasten, et al., 2012; Hill & Hannon, 2008). Planning to present either cooperative or competitive activities allows the teacher to consider the overarching goal for the lesson and how it will be received by the students. With student learning in mind, teachers should be able to decipher if a cooperative or competitive approach best meets the teacher's stated goal (Culpepper, Tarr, & Killion, 2011).

On the contrary, teachers who do not plan accordingly can negatively affect a student's experience in PE class (Beighle & Erwin, 2013; Bulger, Housner, & Lee, 2008). Specifically, a teacher who unknowingly presents a lesson in an ego-involving climate and does not preface the lesson with proper skill building activities can initiate a lower level of enjoyment from students (Grasten et al., 2012). Teachers' knowledge and level of comfort with certain curriculums can vary (Quay & Peters, 2008), and if a teacher is not pedagogically competent with a specific activity, they may rely predominantly on areas they are more familiar with and deny students the opportunity to learn a broader, more diverse curriculum (Morgan, 2008). Careful and intentional planning is an important aspect of teaching and may allow students to enjoy the activity presented in PE class.

Summary

This section examined the definition of attitude and the various factors that can affect a student's attitude in cooperative activities in PE classes. Ones' attitude is a critical part of all aspects of effort, and factors that can affect attitude in cooperative activities in PE can range from relevance of curriculum, class atmosphere, and

confidence in performing the activities presented. Additionally, the teacher, grade and age level, gender, and ethnicity can affect a student's attitude toward cooperative activities presented in PE classes. Understanding these factors and recognizing their affects can help to create more effective and enjoyable PE programs. By constructing a more effective and enjoyable PE class and aiming to meet the needs of all students in the class, student participation and physical activity might increase.

Student Skill Level

Student skill level is a key aspect to participation in PE class (Boyce, 2009; Grasten et al., 2012; Liu, Wang, & Xu, 2008; Pannekoek, Piek, & Hagger, 2013). PE programs can exacerbate the importance of skill level or lessen its effect by focusing more on enjoyment and less on competition (Hannon & Ratliffe, 2004). Furthermore, a competitive PE environment could cause students, who do not have the motor skills to participate in competitive sports, to have negative experiences and feel alienated from both the activity and classmates (Liukkonen et al., 2010). Students, then, can have very different experiences in PE class, and this should be considered when deciding on the type of class structure best meets the needs of all students.

Role of Cooperative Learning in Physical Education

Cooperative learning focuses on bringing students together to work in small, structured, heterogeneous groups with the goal of mastering the content presented by the teacher (Casey, Dyson, & Campbell, 2009). Most importantly, students are responsible for both learning the skills and helping their group members. Along with this focus,

Casey, Dyson, & Campbell (2009) noted the following four elements that should be implemented and stressed when using a cooperative learning format:

1. Teaching interpersonal skills
2. Positive interdependence
3. Individual accountability
4. Group processing

Teaching Interpersonal Skills

Interpersonal skills and small-group effectiveness are critical facets of PE classes since students, in order to be good teammates, need to develop proficient communication skills (Dyson & Rubin, 2003). Laying the groundwork for effective interpersonal skills requires students to learn how to give directions, listen to one another, solve problems, and both give and receive feedback (Casey, Dyson, & Campbell, 2009; Dyson & Grineski, 2001). These skills are not easily obtained by middle school students, and Constantinou (2010) found many students require these social skills to be taught to them. Teaching theses skills can be done through team-building activities, initiatives, and other cooperative-based pursuits (Igel & Urquhart, 2012; Zmundy, Curtner-Smith, & Steffen, 2009). The various activities used as the vehicle to foster positive interpersonal skills need to be facilitated correctly with consideration given to the students' age, grade, and developmental readiness to ensure they have the optimal opportunity to learn about themselves, socially, emotionally, intellectually, and morally (Metzler, 2011).

The development of students' interpersonal skills has been deemed important enough by The National Association for Sport and Physical Education that it has been

integrated into the national PE standards. The following national PE standards stress the importance of positive interpersonal skills:

- Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings.
- Standard 6: Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

Positive Interdependence

Linking students together in a manner that requires them to all work together in order to succeed and not have success depend upon a single person is the essence of positive interdependence (Dyson & Rubin, 2003; Hannon & Ratliffe, 2004; Igel & Urquhart, 2012). Reliance upon one another to perform is critical for achieving positive interdependence. Additionally, positive interdependence requires a group of students to share both common goals and resources, have assigned roles, and communicate with one another (Casey, Dyson, & Campbell, 2009). This process can allow for both learning motor skills and how to be a productive member of a team.

The development of positive interdependence, however, does not come easily and consistent evaluation and feedback from the teacher is vital (Dyson & Plunkett, 2012). Dyson and Grineski (2001) suggest starting with groups of two to help students understand how to effectively perform reciprocal roles; the roles to be shared would be coach and performer. The coach is responsible for providing applicable, performance-related feedback, and the performer has many opportunities to practice before the roles are switched. This approach does require students to take a more active role in their

learning and is predicated on them being responsible for themselves and more dependent on their group, rather than the teacher (Casey, Dyson, & Campbell, 2009).

Individual Accountability

Cooperative learning requires students to hold each other accountable through various means and in several ways: by a group verifier, by students monitoring and rating one another's skills, and by group members filling out a cooperative-learning task/skill sheet (Igel & Uruhart, 2012). Requiring students to hold each other accountable and provide realistic, helpful feedback to one another empowers them and provides a sense of ownership in their learning (Hannon & Ratliffe, 2004). In addition, when students develop the communication skills necessary to give and receive feedback they can cultivate a sense of respect for their classmates and play a more active role in helping others to develop skills. Teachers do need to recognize that this process should be actively managed and directly overseen to ensure students are on-task and correctly utilizing the process.

Group Processing

Group processing is done verbally and with the intent to give both students and teachers the opportunity to provide feedback. Students can use this time to solve problems, receive feedback on their skill development, and share both highs and lows from class (Dyson & Rubin, 2003). Teachers, on the other hand, can gain valuable insight into group dynamics, help solve problems, and use the information they gained to help plan and prepare the next class (Casey, Dyson, & Campbell, 2009).

Group processing does take some time to facilitate, but if done efficiently during the last five minutes of class, students can recognize its' value and benefits. Open-ended questions that refer to how problems were solved, who did things well, or how progress was made can allow all students to quickly participate in the processing. Additionally, group processing can intentionally occur at the beginning of a unit, a couple of times during the unit, and at the end of the unit. By planning these processing times, the teacher can account for the time it takes to facilitate this aspect of cooperative learning.

Case Studies

Two case studies involving children establish distinct examples of how case study research is conducted among youth. Hanson and Sanders (2010) used case study research to explore fifth-grade-students' experiences participating in active gaming situations during physical education classes. Six students from a fifth grade class in the southeastern United States were selected because of the schools' gaming facility. Non-participant observation was utilized by the researchers for 16 class periods; classes were held twice a week. Additionally, each class was videotaped and formal interviews conducted with both students and teachers. The students were paired together for the 15-20 minute interviews conducted on three separate occasions. Three separate interviews were also conducted with the PE teacher. Interviews were both audio and video recorded and transcribed for analysis. Additional data sources included journals from both the students and the teacher. Open-ended questions were given to the students, who answered them during week one, four, six, and eight of the study. The teacher provided one journal entry after each gaming class.

Data analysis included the following steps

- Comparisons and triangulation of formal and informal interviews and journal entries.
- Both similarities and differences in participant experiences identified.
- Categories were formed, merged, and organized into themes.
- Correlations within themes were analyzed and identified.

Using the themes to write a narrative helped the researcher depict a detailed picture of the participants' experience in the study. The limitation to the study was the small sample size.

In the proposed cooperative learning study, focus groups will be utilized rather than interviews, but they, too, will be audiotaped, Similar to the Hansen and Sanders study, this study will also have a form of non-participatory observation, but this study will incorporate note taking but not the videotaping of classes. The Hansen and Sanders study and this one, are both aiming to capture an overview of a specific school setting and describe how the students perceive and respond to it. In both the proposed and present study, data can be triangulated. To help increase the internal validity of the proposed study, the researcher will both member check and triangulate and compare the responses from the focus groups, the formal interviews with the PE teacher and the field notes. Much like the present study, this researcher needed to play multiple roles (researcher and interviewer), which could be considered a limitation of the study.

Daniels, Marcos, and Steres (2011) based their study on the premise that people form meaning from their experiences and that meaning is critical to understand why

students alter their behaviors. The authors wanted to determine how a school culture that focuses on reading influences student engagement with reading. Fieldwork and interviews were completed in a middle school set in Southern California and guided by a case study approach.

A case study approach was adapted in the study because of its focus on trying to understand how and why the educational institution's shift to a reading-based focus influenced student engagement. Additionally, the authors wanted to better understand how the teachers helped to create a school-wide reading culture. Research trying to answer "how" and "why" questions and be more explanatory tend to lead toward a case study design (Yin, p.10). To help encourage an promote honest answers from the students being studied, the researcher utilized a teacher from the school to conduct all interviews and focus groups. The data was collected through on-on-one interviews with students and were open-ended. Follow-up questions were created on the spot by the interviewer in order to help clarify some responses. Following the interviews, focus groups were used to assure a random sampling of students were involved.

In order to better understand the motivation of the students, the researchers used sociocultural theory as the lens better understand student motivation. Daniels et al. (2011) also noted how motivation research looking at student engagement is anchored in self-determination theory and expectancy value theory. Having these three theories provide context to the study and helped the researchers understand how students perceive school and find motivation for school work.

The participants in the study were sixth, seventh, and eighth grade students and their middle school teachers. Of the 1,356 students in the school, 108 of them participated in the study through either interviews or focus groups. A total of 17 teachers and administrators participated in the study through focus groups. A stratified random sample ensured the researchers had representation from all three levels of English classes: regular, structured, and gifted. Teachers' names were randomly pulled from a hat to have them participate in one-on-one interviews. All participants volunteered and understood they could opt out at any time.

Analyzing the data required the researchers to immerse themselves in it and identify themes. To help with the immersion, the researchers transcribed all interviews to read through them. To start, the researchers reviewed the data independently and then met as a group to realize 80% of the same themes had been found by each researcher (Daniels et al., 2011). Recurring ideas from each theme were then grouped into categories. The focus groups and interviews conducted by the researchers resulted in the following school findings:

- Reading was made a top priority.
- Adults in the school both modeled and supported reading.
- There was a creation of motivating learning environments.

As a result of the case study, three actions were identified that could help schools foster a culture of reading: (a) prioritize reading as a school-wide goal and as a subject of ongoing discussions, (b) provide ongoing professional development that allows faculty and staff to become knowledgeable about young adult literature, and commit

resources-time and money- to ensuring that all faculty have comprehensive classroom libraries and an understanding of how to manage them effectively (Daniels et al., 2011).

There are some limitations in the above mentioned study. To start with there is the risk of social desirability bias when students encountered follow-up conversations about the reading culture of the school with the researcher. A limiting sample of one elementary school in Southern California does minimize the ability to generalize the results. Finally, as is the case with most case studies, it is not possible to portray an exact picture of the phenomena being studied in the school.

Based on the findings, study design, and results, I believe taking the following steps was appropriate for case study research that could generate reliable results:

- Identify the appropriate theory to guide the study.
- Define operational definitions for the constructs that are sought to be explained.
- Attempt to minimize social desirability bias by taking a nonjudgmental approach, assuming the "least adult role," and recording focus group interviews.
- Identify the proper type of data collection instruments.
- Identify categories that indicate participant's attitudes toward activities.
- Code the categories.

Daniels et al. (2011) used case study design to discover how and why a culture shift to school-wide reading possibly influenced student engagement. Similarly, the proposed study on students participating in a cooperative –based PE class will

also require students and teachers to react and explain how they feel about the specific cooperative program and why they feel that way. This approach is appropriate for the study since the students will be active participants and able to give their perspectives and attitudes of their first-hand experiences. Another similarity between the discussed and proposed study is the researchers' desire to immerse themselves in the collected data to learn about the participants' experiences, rather than using software to analyze and sort data. Although there was no mention of coding in the Daniels, Marcos, and Steres study, triangulation will be used in the cooperative learning study and relied upon to help define convergence points from the multiple sources of data to be collected.

Gaps in the Literature

The literature disclosed that cooperative learning is an acceptable, well established approach to learning in a variety of academic situations and with a wide-range of ages. Cooperative learning in PE, however, has not been thoroughly investigated in the literature (Bradford, Hickson, & Evaniew, 2014). Specifically, Kyndt et al. (2013) performed a meta-analysis on the effects of cooperative learning and identified a need to assess student s' attitudes and perceptions toward cooperative activities in a PE setting. The limited research on cooperative learning in PE has not focused on specific sport-related skill development, rather more on traditional group cooperative activities. The need for an investigation into a cooperative-based PE unit that focuses on students learning a traditional sport like volleyball could help to expand the possibilities of cooperative learning in PE.

Participating in PE can be a daunting endeavor for those who are less-skilled than their peers. It could also be argued that those who are less-skilled might be less motivated to be physically active both in and outside of school. It might be possible to alter the attitudes of these less-skilled students if their PE class aims to be more cooperative and less competitive. The proposed qualitative study aims to identify the attitudes and perceptions middle school students have toward a cooperative-based PE unit.

Summary

The purpose of this study was to examine students' attitude and perceptions regarding cooperative activities presented in PE classes. Identifying how students perceive cooperative activities is a critical aspect for PE teachers to recognize, when deciding on a curriculum model. This realization could help to improve PE programs and increase participation rates. Presenting activities in a manner that meets the needs of all students is vital for a PE teacher.

Research have recognized the significant role teachers play in shaping how students receive and feel about PE activities. Enjoying PE activities is crucial for students, and teachers are at the forefront of ensuring that enjoyment. Providing students with a sense of belonging, relevant and enjoyable curriculum, and the time and feedback necessary to develop motor skills can allow them to enjoy the activities being presented. Of course, holding students accountable and guiding their skill progressions are also important facets of teaching and allow students to recognize their successes. If a student recognizes their own improvement and success, he or she can enjoy the activity presented and possibly continue to pursue it throughout his or her life.

Chapter 3: Research Method

Introduction

The review of the literature focused on cooperative learning and how it is used in educational settings. A variety of factors such as, student motivation, curriculum, teacher behavior, class atmosphere, and gender can affect student attitude toward PE class. A better understanding of how students feel about cooperative learning in a PE setting is required to help teachers meet the needs of all students. Bradford, Hickson, and Evaniew (2014) noted cooperative learning promotes both a high level of participation and personal relationships for students. Because cooperative learning has been positively received in a variety of classroom settings, a qualitative method and a case study design was utilized to determine the effects it had in a PE setting. The chapter is a description of the rationale for using a case study approach, describe the sample population, describe the data collection methods, analyze the protocol in case study research, and describe the ethical procedures to protect the participants.

Rationale for Case Study

Cooperative learning is associated with positive effects on student learning in formal learning environments (Kyndt et al., 2013). Improved understanding of how cooperative learning is both received and perceived by middle school students in a PE setting can assist both curriculum writers and PE teachers in their efforts to serve all students. Researchers associate student attitude, curriculum, and class atmosphere with participation in PE class (Smith & St. Pierre, 2009). A case study approach was used to determine students' attitudes and perceptions of a cooperative-based PE unit.

Case Study Approach

A qualitative study using a single-case study approach was selected for this study because (a) the investigation of a present time event in a real-world context that can be both seen and studied (b) the boundaries between phenomenon and context is not clearly evident (Yin, 2014, p.16). Trochim and Donnelly (2007) noted that quantitative methods might not illuminate all the intricacies of the responses of the participants to a program or how the program affects participants. Thomas, Silverman, and Nelson, (2015) stated how a case study approach is considered appropriate for physical education when there is a need to extend the knowledge base of a specific aspect in an educational program. Murphy, Diongi, and Litchfield (2014) also used a case study design to better understand a teacher's perspective and experience while trying to promote female participation in physical education classes. It is important to remember that a researcher conducting a case study must have contextual knowledge to be able to illustrate the setting of the case and provide a clear, accurate picture. Gaining an in-depth perspective of a bounded system is why a qualitative case study design would be applied.

Qualitative methodology requires researchers to select a population using nonrandom sampling but use inferences from the study about the whole population (Creswell, 2007). I used convenience sampling; therefore, the qualitative method was suitable for the study. Since there are various methodologies for qualitative studies, a researcher must identify the suitable method before beginning. The five methods outlined by Creswell (2007) are as follows: narrative, case study, ethnography, phenomenology, and grounded theory. Case study was proposed for this study because of the nature of the

questions pertaining to how students perceive cooperative activities and why their attitudes toward cooperative activities are the way they are.

Other methods were not deemed fit and therefore, rejected. Specifically, a narrative approach entails writing the experiences of one person's life or collecting descriptions of various events and developing a story form those events (Creswell, 2007, p. 55), which was not a proper fit because this research aims to analyze participants' reaction to one type of activity. A phenomenological study was dismissed since its focus is to describe what all participants have in common as they experience a phenomenon (Creswell, 2007, p. 58). The ethnographic method was also rejected because it tends to involve a specific cultural group and aims to describe the shared experience of the group through their behaviors, beliefs, values, and language (Creswell, 2007). Grounded theory was considered, but since there is only one sample group there can be no comparisons made between different groups.

Case study was used for this study because it aimed to delve into the specific cooperative learning program and explain how the process affects students' attitudes. The single-case study approach, Yin (2014) noted, "a single case can represent the critical test of a significant theory" (p. 51). "Case study is appropriate when a case includes a clear set of circumstances within which its propositions are believed to be true" (p. 51). Although cooperative learning has been identified as a useful educational method in the classroom and has established itself with a clear set of circumstances, additional empirical evidence is needed to identify whether the propositions associated with cooperative-based activities are true when applied to a PE unit with middle school

students. The proposed case study could provide a significant contribution to the theory of cooperative learning.

Research Design

A qualitative method using a case study design was used for this study. Creswell (2007) noted an instrumental case study has the researcher solely focus on a single concern that can be illuminated from analyzing a bounded case. There are several procedures for conducting case studies. The first step requires the researcher to have clearly identifiable cases with boundaries and have a desire to depict an in-depth understanding of the case (Creswell, 2007, p. 74). Next a case needs to be identified that can accommodate necessary sampling methods. Along those lines comes the need to collect data from a variety of sources, such as: observations, interviews, documents, records, or physical artifacts (Creswell, 2007). A holistic analysis of the case will then identify themes or issues that can help to explain the complexity of the case. The final step requires the researcher to interpret the case and explain what was learned about it.

For this case study, the following central research question were posed:

> What are the attitudes and perceptions of middle school students toward cooperative activities in physical education?

The following subset of questions will also be answered:

1. How do middle school students perceive cooperative learning activities in physical education class?
2. How do middle school students feel when participating in cooperative activities in physical education class?

Although cooperative learning has been extensively studied and applied in academic settings, there is a shortage of research alluding to such climates being used in PE class (Casey, Dyson, & Campbell, 2009). There has been no defined research tradition, but cooperative learning has been studied in an array of fields and with both quantitative and qualitative designs (Bradford, Hickson, & Evaniew, 2014). A single case study design to assess the perceptions and attitudes of middle school students toward cooperative PE activities can help shed light on the subject.

The case study approach can be found rooted in the social sciences with a long history of proving itself as a reliable, productive design across many disciplines (Creswell, 2007, p. 73). Due to this long history dating back to Freud and its extensive use from the 1920s to 1950s in the University of Chicago's Sociology Department, case study approach has evolved and now offers five different possibilities. Those five approaches are narrative research, phenomenology, grounded theory, ethnography, and case study. Case study, however, has five aspects to its design that are important. The first aspect is the study questions. Creswell (2007) noted case study research is best suited to answer how and why questions; a thorough literature review is necessary before settling on research questions. The second aspect is having propositions that point to something that should be analyzed within the scope of the study (Yin, 2014, p. 30). The unit of analysis, known as the case, is the third characteristic of case study design. The fourth aspect is linking data to propositions. Finally, the fifth aspect is the criteria for interpreting a case study's findings.

Method

This chapter details the research methods and procedures used in data collection and analysis. I investigated the attitudes and perceptions of students toward cooperative activities in physical education class and examined whether the students' skill level influences their attitudes toward those cooperative activities. To unveil the attitudes and perceptions students have toward cooperative activities in physical education class, qualitative methods were selected.

The first method to collect data was nonparticipant observations (Enriquez, 2013) and was utilized to define and record the setting in which students interacted. Focus group interviews were used to indicate how students' social interactions, feelings, and beliefs stem from the cooperative activities they will participate in during physical education class. Facilitating the focus groups allowed the researcher to become more involved and offer a more structured, in-depth process. Finally, formal interviews with the teacher were utilized to gain an understanding of their thoughts, lesson plans, and actions, all of which could not be observed.

Procedures

After revisions were completed, the methods were finalized. These methods included nonparticipant observations, field notes, focus groups, and formal interviews with the teacher. The first round of focus group, observation, and teacher interview served as a pilot but did not require this researcher to alter anything.

Gaining Entry

I chose a private school that had a PE program that teaches both cooperative and competitive activities. School administrators welcomed the idea of being part of the study, authorized the study, and allowed the researcher to utilize any of the physical education teacher's classes to be used in the study. The class chosen was randomly selected by labeling each class on a small piece of paper and then pulling one of those pieces of paper out of a hat.

Informed Consent

Each participant received a written informed consent letter. Before the study was conducted, each administrator received a letter reiterating the purpose of the study and confirming her or his approval (Appendix E). The students who participated in the focus group received a consent form (Appendix F). The parents of students who chose to participate in the proposed study also signed a consent form (Appendix G). Additionally, the PE teacher was required to sign a consent form (Appendix H), so that he could participate in formal interviews.

Participants

A total of 18 students from one school were selected to participate in the study; a total of 9 boys and 9 girls. The ages of the participants ranged from 11-12. In terms of ethnicity, the majority of students were Caucasian with a couple of mixed-raced students.

General Activities Observed

The majority of the 10 students who volunteered for the focus group pursue competitive activities outside of physical education class. The list of activities that students participate in outside of school are presented in a table.

At the school observed, students have PE class twice a week for 45 minutes. Each class has 16-18 students in it and one PE teacher. The school has plenty of PE equipment, so students do not have to stand in lines to wait for a turn. The school does have a gymnasium on campus. With lots of space, it was easy for me to observe the class without disturbing the activity. The class structure included time to practice the skills being taught and was followed by the opportunity to apply those skills in small group games. In most classes the game was modified to ensure all students had an equal opportunity to both touch the ball and develop and apply skills.

In the physical education program at the school hosting the observations, there are cooperative, competitive, and initiative activities presented to students on a regular basis. Specifically, the curriculum included team building, volleyball, basketball, racquet sports (badminton and tennis), floor hockey, ultimate frisbee, lacrosse, tchookball, and various cooperative activities that allow students to assume different roles. Many variations of games are original creations by teachers at the school. Although there is a mixture of competitive and cooperative activities presented at the school, a greater emphasis is placed on how students act as teammates as opposed to who actually wins the game; score is not kept or reported in most games. The cooperative activities observed were based around developing the skills required to play volleyball.

Observations

Before conducting each focus group, a nonparticipant observation of the physical education class took place. After each focus group, another non-participant observation occurred; each non-participant observation lasted for the entire 45-minute class. I positioned myself in a location that allowed me to see and hear the whole class. Nonparticipant observations require the observer to be an eavesdropper without interacting with the participants (Singleton & Straits, 1998, p.314). During the observation, notes were taken and followed the created guidelines. Specifically, descriptive notes of student interactions, comments, and body language were noted on the left side of a notebook, while the right side was used for my thoughts on the class dynamics. Patton (2002) recommended the above mentioned format when taking field notes.

For the purpose of this study, the three main focuses of the observation were: (a) to determine how students were engaging in the cooperative activities, (b) to see if students were equal participants in their groups, and (c) to find out how students interacted with one another. In a study on female students' perceptions about gender-role stereotypes and their influence on attitude toward physical education by Constantinou et al., (2009), nonparticipant observations were used in conjunction with both student and teacher interviews to ensure a thorough depiction of how girls participate in and perceive PE class. This type of nonparticipant observations can allow for a quick assessment of a situation since nonverbal cues can be seen by a researcher without having to spend time immersing oneself into a group or situation (Trochim & Donnelly, 2007, p. 147.).

Focus Groups

Several sources were utilized to develop the guidelines for the qualitative methods used in this study. Focus group interview questions were open-ended questions and developed by reviewing several qualitative studies focusing on sport, student attitudes and perceptions toward physical education. After the questions were created, the initial step taken in polishing the questions was to review and discuss the preliminary questions with the researcher's doctoral advisor. After that initial step was completed, the questions were then shared with 18 middle school students, 8-9 males and 8-9 females, at a middle school. The students marked questions or words that were unclear and changed the questions by writing a correction. The corrections were reviewed, incorporated, and then approved by the IRB.

The preliminary focus group questions were divided into six sections. The first section served to gather background information. The second section was an introduction for the student to provide their background and participation in physical activities. The third section concentrated on the perception of the student or students toward activities presented in physical education class. The fourth section focused on the student or students' perception of skill. The fifth section also focused on perceptions and sought to discover how the student or students perceived cooperation. Finally, the sixth section centered on perceptions of cooperation in physical education class.

I introduced the purpose of the study to the middle school students during their regularly scheduled period of physical education. Focus groups were held during the students' lunch and recess time (30 minutes) and in the PE teacher's office without

distractions. Students in the focus groups were allowed to leave at any time and return to either lunch or recess. The focus group participants were put into various groups, so that they were not with students they were grouped with during the cooperative PE activities. This allowed students to speak more freely about their own experience in the group and with the activity they performed. The focus group interviews were digitally recorded, by placing the recorder in the center of the table that the students occupied. Testing of the recorder to ensure proper sound quality was done by the researcher. Questions and protocol for the focus group can be found in the Appendix C.

Formal Interview With the Teacher

Before conducting the study, I met with the PE teacher and explained the purpose of the study. The teacher volunteered to participate in formal interviews. Interviews with the teacher were held after the observed PE class. The 30 minute interviews were held in the PE teacher's office after school on the day of the observation. Questions asked during the interview stemmed from the class observed and focused on gaining clarity around lesson plans, students' reactions, and anything unclear to the researcher. All comments from the teacher were noted in the field notes by the researcher. Interview questions for the teacher can be found in Appendix D.

Data Analysis

Data analysis is a complicated and vital aspect of qualitative research (Creswell, 2007). All data collected from my field notes were reviewed several times and transcribed immediately. Additionally, all focus group digital recordings were downloaded and transcribed into a word processing program. These digital recordings

were compared to the transcripts and field notes and converted into themes through the system of coding. During focus groups, open-ended questions were used to allow participants to express their individual feelings and perspectives about the cooperative activities they encountered in PE class. Additionally, students freely expressed their feelings towards other participants and the effect the activities had on how they felt about themselves when playing in PE. The close-ended questions primarily consisted of data pertaining to participant age, name, and own skill rating. All data were stored on a computer and was password protected. The data consisted of recorded participant responses, notes from focus groups, field notes, and notes from the formal interviews with the teacher. I coded the data in the three stages identified by Creswell (2007): open, axial, and selective. During the open coding phase categories of obtained information was formed by splitting the information. According to Creswell, "The second stage of coding will require the researcher to assemble the data in new ways using a coding paradigm or logic diagram in order to identify a central phenomenon" (p. 67). This allowed the data to, through visual aids, pinpoint and describe concepts that affected the issue being studied and had possible theories emerge. In the third stage of coding, known as selective, this researcher aimed to explain how the categories are connected. Creswell (2007) noted that this stage allows the researcher to disclose the findings through illustrations, figures, tables, or from a narrative.

Trustworthiness of the Data

To minimize potential threats to trustworthiness and attempt to increase credibility, focus group interviews were immediately transcribed and reviewed by the

researcher. Member checking, triangulation, and peer review were also be used to verify both trustworthiness and credibility. Students participating in the focus groups were asked to review the transcripts for accuracy. Having each focus group member perform a member check to ensure the transcripts reflected his or her actions and words helped to ensure accuracy. Any changes made to the transcript by the student(s) were incorporated at that point. Students participated in the focus groups in a quiet, non-threatening environment meant to encourage honest feedback.

In order to establish dependability, the triangulation of observations, field notes, focus groups, and formal interviews with the teacher were completed. Additionally, the formal interviews with the PE teacher were utilized to ensure observations and field notes were both accurate and representative of what occurred. Using the formal interviews as a means to answer researcher questions about a specific class or student allowed for greater clarity and supplemented the information being gained from observations and focus groups. By recognizing my experience with both observing PE classes and facilitating cooperative activities, it was important to document exact comments and behaviors while trying not to interpret a specific action without gaining some clarity. This, in return, helped to establish some confirmability. Because the teacher also helped to shed light on some of the observations, it helped to confirm that specific actions or comments were interpreted and documented correctly.

Once the transcripts had been analyzed and coded, I checked the field notes and focus groups transcripts for cases that might not have fallen into a certain pattern or category. The data were also analyzed extensively for cases or instances that might

provide alternative explanations. If these cases were found, they would have been evaluated for other explanations that the researcher had previously not considered. Since this study was a single case study, it is not possible for results to transferable, but by conducting a similar study at multiple sites would help to generalize the results.

By working closely with the researcher's doctoral committee, I provided a set of completed transcripts and observation notes from the study. All questions and suggestions were either answered or implemented before the document was completed.

Researcher's Background

In this study I had an interest in physical education pedagogy and decided to pursue a doctoral degree in public health and focus on physical education in schools. I had experience teaching in both public and private schools, therapeutic settings, and with kids ranging between the ages of 5-18. I also had an extensive background in coaching both middle and high school sports. After obtaining my doctoral degree the I plan to pursue a position as a professor of pedagogy in physical education.

In order to check for any biases that might have occurred in the study and to verify both trustworthiness and credibility, the researcher worked with his doctoral chair and other members of the doctoral program. Additionally, member checking was done during focus groups and was accomplished by repeating participants' statement to them and asking them to attest to the accuracy of them (Creswell, 2007). The triangulation of field notes, focus group results, and the informal interviews with the teacher was done to rationalize themes and reinforce the validity of the findings.

Summary

This chapter outlined the design and methodology proposed for this study, which used a qualitative case study approach. This methodology was chosen for the flexibility provided when the students' attitudes and perceptions were being assessed. Data was collected from field notes, focus groups, and formal interviews with the teacher. Chapter 4 will provide a description about the process used to organize and collect the data along with how the data evolved into specific themes.

Chapter 4: Results

Introduction

The purpose of this study was to determine the perceptions and attitudes middle school students have toward cooperative activities in physical education class. Two theories steered the study, social cognitive theory and the competence-motivation theory. A central research question and two subset questions were devised from the theories:

What are the attitudes and perceptions of middle school students toward cooperative activities in physical education?

Following are the subset questions:

1. How do middle school students perceive cooperative learning activities in physical education class?
2. How do middle school students feel when participating in cooperative activities in physical education class?

In order to investigate the perceptions and attitudes of middle school students toward cooperative activities in PE class, seventh grade students in a private middle school were invited to participate in the study. In this chapter, the population of the study, the procedures used to ensure the integrity of the data collected, how the data were both collected and recorded, and the methods used to analyze the data collected are discussed. In Chapter 5, the findings of the study will be summarized.

Demographics

After obtaining approval from the Walden Institutional Review Board, (Approval # 09-01-16-0049338), I met with the PE teacher and students to both introduce myself

and the study, hand out parent consent forms and student assent forms, and read the assent form with the students. All 17 students in the PE class were invited and 10 of them chose to participate.

The final sample consisted of 10 seventh grade students between the ages of 11-12, and those were the students who agreed to participate in the focus groups and had their parents also consent. Although the other seven students did not assent to be part of the focus groups, they were able to be observed along with the rest of the students. The focus group consisted of six girls and four boys.

Protection of Participants

I delved into this study with an understanding around my responsibility, as the researcher, to protect the privacy of all participants and keep them all safe. Students who signed their assent form also had their parents sign a consent. The real names of the focus group participants were not used, and they chose a fictitious name to use, which was audio-recorded during the focus groups. All focus groups were also reminded that their real names would not be used, and they chose a name that they referenced before or after answering each question. The participants were also reminded that they did not need to answer a question they did not want to and they could leave the focus group at any time. Finally, they were reminded that there were no right or wrong answers and that all voices should be heard equally.

A week after handing out the parent consent forms and student assent forms, I arrived at the school to collect the forms from the students. Most of the students brought their forms to class; but, two students had to go to their lockers to retrieve the forms. I

reminded the students they could still volunteer for the study if they had their forms filled out by the following week.

Researcher as Instrument

A qualitative study requires a researcher to be the primary instrument of the study (Singleton & Straits, 2005, p.307). In order to ensure the reliability of the study, I recognized the importance of a neutral attitude during my observations and how any potential biases could negatively impact the data. By recognizing this and understanding that the collected data could only add to the body of research around cooperative education, it allowed me to ensure I was open to documenting all behaviors. The observations were broken into descriptive notes focusing on student interactions, comments, and body language and then notes focusing on class dynamics. Patton (2002) recommended the above mentioned format when taking field notes.

Data Collection

The study entailed four, 45-minute class observations over the course of 4 weeks. Four, 30 minute focus groups followed each observation and four 25-minute teacher interviews were held right after each focus group. The first observation, focus group, and teacher interview was meant to serve as the pilot; but, when the focus group questions were well received and easily answered, the observations were both detailed and easily documented, and a productive, detailed teacher interview; it was apparent no changes were necessary.

Observations focused on documenting participants' actions, words, and body language while being involved in cooperative activities. How students react together,

treat each other, and communicate in a group setting were the class dynamics that were documented during the observations. Documenting these class dynamics helped to depict and overall representation of what had been happening during the cooperative activities.

Focus Groups

I created five questions for the middle school student focus group participants to introduce themselves and help them feel comfortable and then 36 questions to gain participants' perceptions and attitudes toward cooperative activities in physical education class. The 30-minute focus groups were held immediately after each observation.

All four focus groups were audio-taped with the date and time noted, and each participant chose a fictitious name that they used during the focus groups. Before, and sometimes after, each student spoke they referenced their name; however, there were times when I had to reiterate the student's fictitious name after they spoke. Since the focus groups were held at noon, I was able to transcribe the focus groups audio tapes the same day and then type up my observation notes within two days of the observations. All of my observations, focus groups, and teacher interviews were held during October 2016. With a variety of both open and close-ended questions posed to the students, most of the students were able to answer succinctly and elaborate or clarify when asked to. The interview schedule is listed in Table 1.

Table 1

Schedule of Interviews

Participant	Date	Time
Rebecca	10/6/16	12:30
Rosie	10/6/16	12:30

Kendra	10/6/16	12:30
Allie	10/13/16	12:30
Barb	10/13/16	12:30
Betty	10/13/16	12:30
Billy	10/20/16	12:30
Paul	10/20/16	12:30
Ted	10/27/16	12:30
Tim	10/27/16	12:30

Observations

Four class observations coincided with the focus group schedule and occurred right before the focus groups. During each observation, I documented the behaviors, comments, and body language of participants. Typing the hand-written observations within 2 days of the observations kept the session fresh and clear in my mind. Creswell (2007) noted how reading collected data after each session helps a researcher to identify patterns that are surfacing. After the second week, I started to code the data.

Teacher Interviews

To gain the teacher's perspective, I created 19 questions for him to answer after each observation. Four teacher interviews were held in the same office that focus groups were held and right after each focus group. The interviews lasted around 25 minutes and responses were hand-written. These responses were then typed-up and reviewed 2 days later.

Data Analysis

The data analysis for this study consisted of organizing the data, coding the data, and then formulating the data into themes. All the collected data from observations, focus groups, and teacher interviews were typed-up within 2 days of being collected. Analyzing and assessing themes from the observations, focus groups, and teacher interviews required that I use tables and charts. By constantly comparing and searching for relative themes and experiences through open and selective coding, specific phrases, actions, and comments were highlighted and assigned a preliminary code.

Once all the audiotaped focus groups were transcribed, I was able to then group all the answers to each question to help facilitate themes. Selective coding was then used to help identify a core variable. Some of the codes I created were determined to be insignificant or used to develop subcategories, which were then put under themes that were both emerging and significant. Developing these themes during axial coding, Creswell (2007) suggested that a core phenomenon is identified from open coding and becomes the focus by which specific categories are fleshed out from the collected data. Although the focus group interviews were the primary source of data in this study, both the observations and teacher interviews were utilized to validate the findings of the focus groups and add credibility to the study (Creswell, 2007).

With four observations occurring before each focus group and teacher interview, open coding was used to classify behaviors. Although there were no predefined codes created before the study, the behaviors that were highly prevalent and coded as a result of their prevalence were clapping (cl), high five (hf), laughing (L), and jumping up and down after success (J).

Once open coding was complete, I proceeded to perform axial coding and determined the observed behaviors should be grouped by frequency level; highly prevalent behaviors (HPB), moderately prevalent behaviors (MPB), and infrequent behaviors (IB). These behaviors coupled with the focus groups, teacher interviews and observations were used to identify the themes that emerged, and these themes will be discussed in the subsections that follow.

Focus Groups

The study participants responded to 36 questions and did so over the course of 30-35 minutes. The observations of the participants' behaviors corroborated many of the participants' responses, and I used the observations to triangulate the data collected from the focus groups. By using open coding, I started to align the interview questions with the research it was intended to answer. The participants' responses to the focus group questions and the research questions answered by them are summarized in Appendix A, and the teacher's responses to the interview and the research question answered by them are summarized in Appendix B.

Research Question 1

Focus Group Questions 1, 2, 3, 5, 6, 8, 9, 12, 20, 29, 30, and 36 answered Research Question 1. What are the attitudes and perceptions of middle school students toward cooperative activities in physical education? In general, the answers to Questions 1, 2, 3, 5, 6, 8, 9, 12, 20, 29, 30, and 36 revealed that the students had positive experiences and perspectives around cooperative activities.

In response to Question 1, seven (70%) of the participants understood that equality in voices is a part of being cooperative, six (60%) of the participants also realized that listening to others is a key aspect of cooperation, and four of the 10 (40%) felt that being a “good sport” is part of cooperating. When Participants 9 and 10 were asked to define good sport, they both mentioned that treating people kindly made a good sport. Participant 5 was asked to clarify what a good sport was and responded that it meant that the person did not pout or get upset with others. When Participant 7 was asked

the same question, she responded that a good sport did not get upset with their teammates. Although none of the participants gave the definition of cooperation that is found in the dictionary (the process of working together toward the same end (Metzler, 2011, p.228)), it could be argued that listening to one another, having an equal share in say, and treating others well are key aspects of a cooperative environment. More importantly, the participants understood that a cooperative environment is one in which there is equality in voices, ideas, and work.

There was a consensus from all 10 participants when Question 2 was posed. All participants said cooperation should look like people helping others, and nine of the 10 stated that listening to others should be seen in a cooperative environment. These responses aligned with the answers given in both Question 1 and 3. With Question 3 asking what cooperation sounds like, there was, once again, an agreement from the participants that there should be equality amongst voices, and eight of the 10 participants claimed that positive comments should be heard in a cooperative environment. It appeared the participants understood the multiple facets that help to make up a cooperative environment.

Questions 5 and 6 were directly related to how participants feel about cooperative activities. Responses to Question 5 consisted of eight participants who thought cooperation is fun, six who enjoy the feeling of being part of a group, four who like that there is equality within the group, and three who enjoy the opportunity to help or be helped by others. The participants' responses were telling and included the following.

Participant 7 said, “I like that you have a say in something and that you won't get put down and that you feel like you are part of something and that you have made a contribution.”

Participant 1 said, “It is nice when you're cooperating and not getting interrupted and that you get to hear everyone's thoughts, which makes it a strong community.”

Participant 10 stated, “You don't have to feel embarrassed about what you say.”

Participant 6 said, “It is nice that we're all equals and nobody is left out.”

Participant 5 said, “There is less pressure to win when the focus is on working together and not beating each other.”

Participant 6 said, “I like that there is always someone willing to help me.”

Question 6 offered participants the opportunity to convey what they did not like about cooperation. Five participants felt that it takes too long to hear everyone's ideas, three participants did not like it when someone takes over the activity, and two participants did not like it when their ideas are not heard.

When participants were asked Question 8, eight of the 10 participants recognized that volleyball was being presented to them as a cooperative activity. Two participants responded with a description of speedball. Specifically, Participant 7 alluded to how the group had to generate their own strategy, try multiple things, and ensure everyone performed their role in order to accomplish the goal and succeed as a team. Question 9 was posed to the participants, and four of them replied that they like small groups when participating in cooperative activities. The other six participants claimed they liked it when cooperative activities were sport-based.

With all 10 participants responding with a yes to Question 10, it was clear they understood that cooperative activities provide an equal opportunity for all students to participate. Participants 1, 3, 6, 8, and 10 alluded to how small groups make it easy for students to participate equally and two of them claimed that since everyone has a role and is being counted on to perform participation comes naturally. Two participants did notice that some students choose not to participate as much as they could but that everyone is encouraged to participate.

When Question 12 was asked, eight of the participants responded that they did feel a sense of belonging when working cooperatively in PE and two participants replied that they sometimes felt like they were part of a group. When asked why this is, five participants said it was because they felt supported, four noted that getting an equal chance to speak made them feel part of a group, and one participant felt a sense of belonging when working together toward a goal.

Seven of the 10 participants said they are equally capable of cooperating well with members of either sex and only three participants said they are better at cooperating with members of the same sex when they were asked Question 20. Along those same lines when Question 29 was asked, eight of the participants said they work cooperatively with classmates when practicing new skills, and two participants said they do it sometimes. Question 30 saw all 10 participants acknowledge that they are capable of working well with classmates that are assigned to them. The majority of the participants recognized the need to work cooperatively when being asked to.

Question 36 asked the participants to add anything that they wanted to and three of them said they like cooperative activities; the other seven had nothing to add.

Research Question 2

I used Focus Group Questions 10, 14, 15, 16, 17, 27, 31, 33, 34, 35, and 36 to answer Research Question 2: How do middle school students perceive cooperative learning activities in physical education class? With all 10 participants responding with a yes to Question 10, it was clear they understood that cooperative activities provide an equal opportunity for all students to participate. Participants 1, 3, 6, 8, and 10 alluded to how small groups make it easy for students to participate equally and two of them claimed that since everyone has a role and is being counted on to perform participation comes naturally. Two participants did notice that some students choose not to participate as much as they could but that everyone is encouraged to participate.

When Question 14 was asked, four of the participants stated that there is too much talking by some group members, and along those same lines, four other participants claimed that sometimes a single person can take over the activity. Finally, two other participants said that letting people down is something they don't like about cooperative activities.

In response to Question 15, seven of the 10 participants claimed that teamwork is the primary focus of cooperative activities in PE. Two other participants said communication was the main focus, and one participant stated that helping others was the focus. Some students expanded on this question and described the focus of cooperative activities as multipurpose. For example:

Participant 3 stated, “The teacher really wants us to explore everyone's ideas.”

Participant 2 said, “The activities are meant to allow us to work with others we might not typically hang out with.”

Participant 9 said, "The focus is to make sure everyone is included.”

Participant 1 stated, “We are suppose to be supporting one another, giving feedback, and treating each other well.”

To help clarify how cooperative activities are presented in PE class Question 16 asked participants to explain if cooperative groups are big or small. Eight of the participants said the groups are small and two said that sometimes the groups are big. More importantly, all ten participants responded yes when Question 17 was asked and were able to convey why they responded the way they did. Such explanations included:

Participant 7 said, “Small groups allow for more of a say.”

Participant 9 stated, “You get to play a bigger role when the groups are small.”

Participant 8 said, “When the groups are big it is harder to hear and try everyone's ideas.”

Participant 8 said, “It is harder for everyone to be engaged and behave well when the group is big.”

In response to Question 27, six of the participants responded positively, and four of the participants noted that in big groups students don't want to take the time to hear everyone's strategies. Participant 9 responded by noting that when the groups are big most people don't want to take the time to listen to everyone's ideas.

In answering Question 31, eight of the participants stated that they do not work better with classmates they get to pick and only two thought they did work better with people they got to choose to be with. The responses to Question 31 included:

Participant 7 said, “If I'm with my friends I might goof around.”

Participant 4 stated, “You can learn more from others you're not too familiar with.”

Participant 10 said, “If I'm with my friends I'm more distracted and tend not to listen well.”

Participant 2 stated, “It is better when the teacher picks the groups.”

Participant 3 said, “It is easier to focus when my friends are not in a group with me.”

All 10 participants replied with a no when asked question 32. The rationale given by the participants were as follows:

Participant 5 stated, “By not choosing you have a wider variety of experiences.”

Participant 6 said, “If you work with people other than your friends you build up chemistry with them, which is good because you spend a lot of time together with them.”

Participant 1 said, “It's good for the teacher to mix things up since some people don't make good decisions about who to work with.”

Participant 3 said, “When you get older you, you won't get to choose who you work with and you should be able to work with anyone.”

In the answers to Questions 33 and 34 participants described what cooperation should both look and sound like in PE class. The answers to these questions indicated that

the students clearly understood the aspects of a cooperative environment that promote a productive experience when participating in cooperative activities in PE class. Specifically, nine of the10 participants said that people helping each other is what cooperation should look like. Seven participants also mentioned that everyone should have an equal say/opportunity, and eight participants also mentioned that listening to others should be visible during cooperative activities. Question 34 garnered similar responses from the participants. Five of the participants said positive comments should be heard during cooperative activities, four participants said people listening to others should be the norm, and one participant said laughing should be heard.

When posed with Question 35, eight of the ten participants were not sure what aspects of cooperation could be improved upon in PE class, and two participants said nothing could be improved.

Research Question 3

Focus Group Questions 4, 5, 6, 7, 11, 12, 19, 21, 22, 23, 24, 28, 30, and 36 answered Research Question 3: How do middle school students feel when participating in cooperative activities in physical education class? The answers to the above mentioned questions demonstrate that students feel positive and supported when participating in cooperative activities in PE class.

The responses to question four indicated that all of the participants understood what they are capable of doing when they are actively participating in cooperative activities. Seven participants said their own ability to listen to others is how they cooperate, and nine of the participants referenced their ability to help others as an

attribute they apply when involved in cooperative activities. Six participants also mentioned that their ability to share is another cooperative attribute they display.

Question 5 provided some good insight into what the participants like about cooperating. Eight of the participants mentioned that it is fun, seven of them liked that they get to help others, six participants said they liked feeling like they were part of a group, and four of them enjoyed that there was equality within a cooperating group of students.

Question 6 also provided some clarity around what the participants dislike about cooperating. Five of the participants said that it can take too long to hear everyone's ideas, three participants did not like it when someone tries to take over the activity, and two participants did not like it when their ideas are not heard. The participants did not elaborate much about what they did not like about cooperating.

It was interesting that question seven provided a consensus when all 10 participants said they were good at cooperating. Participants gave an array of reasons for why they believe they are good at cooperating and included:

Participant 9 said, “I'm a good listener.”

Participant 4 stated, “I contribute a lot of ideas.”

Participant 9 said, “It is easy to share my ideas when the group is cooperating.”

Participant 7 said, “I like sharing ideas and hearing others' thoughts about how to solve a problem.”

Participant 10 stated, “I'd rather cooperate with others than compete with them.”

Participant 2 said, “I like to help others.”

The responses to Focus Group Question 11 indicated that all of the participants had some form of a positive feeling when engrossed in cooperative activities in PE class. Seven of the participants said they felt supported and three of them felt equal to others.

Question 12 saw similar results support the responses from the previous question. Eight of the participants said they felt a sense of belonging when involved in a cooperative activity during PE class and two participants said they sometimes feel a sense of belonging. Specific responses from this question included:

Participant 8 said, “I feel like I'm part of a group when we're all working toward the same goal.”

Participant 1 said, “There is a space for us to talk, learn, and try and be supported, even if we fail.”

Participant 4 said, “People encourage me when I make mistakes.”

Participant 2 said, “Everyone contributes and has ideas and that feels good.”

The responses to Question 18 and 19 indicated that the participants have mixed feelings about how being grouped with or without their friends in cooperative groups makes them feel. Question 18 asked the participants how they felt when their friends are in a group with them. Six of the participants said they liked it, and four participants claimed they felt distracted. Similarly, Question 19 asked the participants how they felt when their friends were not in the group with them. Four participants said they felt focused, three said they felt alone, and three mentioned they felt alone. The responses from these two questions were telling and included:

Participant 10 said, “I like being in groups with friends, but I'm also fine being in a group without them.”

Participant 5 stated, “I like being in a group with my friends, but if there are too many of us it is easy to get distracted.”

Participant 1 stated, “I like it when my friends are in the group with me, because I get to work with my friends and see different parts of them.”

Participant 9 said, “Being with my friends in a group can make it harder for me to focus and not be silly.”

Participant 7 said, “Having a friend in my group can help to motivate me, and we can hype each other up.”

When asked if everyone cooperates when playing in PE (Question 21), eight of the 10 participants responded, “most of the time” and two participants said, “no.” Along those same lines, when participants were asked Question 22, 23, and 24, there was a consensus with all 10 participants answering “yes.” There appeared to be a culture of students helping one another that is both promoted and encouraged by the teacher.

Question 28 asked if students get to equally participate during group games. Seven of the ten participants said that most of the time they get to participate equally, and three of the participants said that sometimes others take over and they don't get to equally participate. The responses to Question 28 provided some interesting insight into how students are or aren't able to equally participate. These responses included:

Participant 2 stated, “If teams are made and are not made equally in ability, it can be harder for everyone to participate equally.”

Participant 3 said, “Most of the time you get to participate equally, but sometimes you don't and it can depend on the activity.”

Participant 6 said, “You are allowed to and encouraged to participate equally but sometimes some students just don't do it”

Participant 9 stated, “Most of the time, yes. Like in today's activity the rule that everyone had to touch the ball made the game really balanced.”

Participant 1 stated, “Rules that require everyone to play equally in order for the group to succeed helps everyone play.”

Participant 5 said, “When the groups are smaller people participate more equally.”

Participant 3 said, “If a leader tries to take over people will participate less.”

Question 30 inquired about the participants' ability to work well with classmates assigned to them, and once again, all ten participants responded with “yes.” Finally, seven of the 10 participants had nothing to add and three of the participants said, “I like cooperative activities” when they were asked Question 36.

Teacher Interviews

Research Question 2

Interview Questions 2, 3, 6, 7, 9, 10, 11, 12, and 16 helped to answer Research Question 2: How do middle school students perceive cooperative learning activities in physical education class? Overall, the teacher's answers to Questions 2, 3, 6, 7, 9, 10, 11, 12, and 16 demonstrated that students perceive cooperative activities in PE class as both useful and helpful.

In response to Question 2, the teacher responded with a "yes" on four different occasions and various comments about why he felt this way included:

"The students learn well from each other and like to do so."

"Positive peer pressure in a cooperative environment helps students raise their efforts and focus more than in a competitive environment, which can have a tendency to stress some kids out."

"The students appear to welcome and receive cooperative activities and then thrive while performing them."

Question 3 saw the teacher, once again, respond "yes" on the four occasions he was asked the question. The answers given by the teacher help to shed light on how students at the school approach cooperative activities. On one occasion the teacher said, "The students know they have to be good at cooperating and continue to get better." During the second interview the teacher said, "The students do a lot of cooperative work in class and understand the norms associated with cooperative work." This information

could be interpreted that cooperative work is a "norm" at the school and that students perceive cooperative activities as a teaching tool.

In response to Question 7, the teacher gave similar responses each of the four times he was asked. On three occasions he said, "There was a high level of engagement and students were involved during debriefings." Two other times the teacher said, "The positive support of less-skilled students was really great today."

Question 9 also saw the teacher respond "yes" during his four different interviews. Once again, he was able to identify why he believed the students participated so well. The teacher said, "There was a lot of positive support towards others." He also mentioned "All the students were actively involved."

The teacher responded "yes" four times to Question 10 and made some insightful comments around why he believed the students liked the activity. During the fourth interview he said, "The students love to strategize and come up with their own ways to tackle a challenge." In the first interview the teacher mentioned, "I know my students well and could tell they were enjoying the activity; plus, they all gave a thumbs up for the activity during the debrief." The second interview with the teacher also saw him provide another perspective on how the students perceive the activities. Specifically, he said, "the students were motivated to accomplish the team goals and were willing to tinker with strategies when things stagnated."

When the teacher was asked in Question 11 if he would change the cooperative activities presented during each class to increase participation, he said "no" all four times. During the first interview he said, "the kids would do this all day long." Although the

teacher did not want to alter the cooperative activity, he did want to change how the team waiting for their turn participated. Specifically, he said, “I would give the team sitting out some specific guidelines for how to be more involved.”

Question 12 had the teacher respond “no” on three occasions and “yes” during the fourth interview. It was important to know if the students had previous experiences with the cooperative activities and had the potential to carry any positive or negative feelings into the cooperative activities. Along those same lines, Question 16 aimed to decipher if the activities were effective enough with the students that they could be adapted to build other sport-related skills. The teacher said three of the four activities could be used with other sport units he teaches.

When Question 18 was asked to the teacher on four different occasions, he replied each time, “I love this kind of stuff, because it is what they are expected to do well in the classroom.” Additionally, during the first, third, and fourth interviews, the teacher said, “There is both social and motor skill growth during these cooperative activities.” Also on three occasions the teacher said, “The students appear to like the lack of pressure and I do too.”

Question 19 asked the teacher to add anything he wanted to, and after all four interviews he responded with a “no.” On three of those occasions he mentioned that he really enjoyed the cooperative activities.

Research Question 3

Interview Questions 4, 5, 8, 13, 14, 15, 17, and 19 helped to answer Research Question 3: How do middle school students feel when participating in cooperative

activities in physical education class? The answers provided by the teacher did help to define that the students felt pretty good when participating in the cooperative activities.

When asked question four, the teacher said,

> Girls working with other girls tend to be more cooperative with one another than boys working with boys, but the boys do work cooperatively well with one another but just need more time to get to a highly cooperative level, but they do get there.

Question 5 was along the same lines as question four but focused on how boys and girls cooperate when grouped together. On three different occasions, the teacher said, “The girls appear to be a bit shy to put themselves out there.” The teacher went on to add “the girls, not all, tend to hold back and not speak up a lot, especially if the boys are screwing around.”

Question 8 asked the teacher to give their perspective on what could be improved upon during each lesson. On two occasions the teacher referenced the need to help the students make their teams more equal. This, in return, was meant to help ensure each team has an equal amount of highly and moderately skilled students. After two different classes the teacher said, “The groups sitting out needed specific directions to observe the groups playing and identify what is working for them.”

The next question to address how the teacher perceived the students' feelings toward the cooperative activities was Question 13. The teacher, during all four interviews, said they would perform the activity again. It was also mentioned by the teacher on four different occasions that there is a high level of positive support amongst

the students. Additionally, during all four interviews the teacher said, “The students are getting a lot of touches with the ball that they would not get in a traditional volleyball game.”

Question 14 required the teacher to determine if the activities were effective at helping to build students' skills. During all four interviews the teacher responded “yes” to this question. He reiterated what he mentioned during the previous question by saying, “The kids get so many touches on the ball with these activities.” The other thing the teacher said during three of the interviews was, “The kids are getting great opportunities to work on communication skills through these activities.”

To help determine how the students felt about their skill development, Question 15 was posed to the teacher. During all four interviews the teacher responded “yes” and believed the activities helped the kids to feel good about their skills after each activity. Specifically, two times the teacher said, “I could tell the less-skilled players felt good about some of their successes and from the verbal support they were receiving.”

Question 17 asked the teacher to assess the students' attitudes during the cooperative activities, and once again, the teacher said, “yes” all four times. During the third and fourth interview, the teacher said, “The students' positive attitudes were mainly due to them having both individual and group success.” When the first and third interviews with the teacher were held, the teacher said, “The kids did not dwell on the mistakes they made or blame one another.” The teacher did not have anything to add, other than he enjoyed facilitating the activities, when he was asked Question 19.

Observations

Table 4 shows the results of the observations that were made over a 4-week period (see Appendix E for codes). These observations were both descriptive and reflective and support the themes that emerged that will be discussed in the following subsection. During each class the children started out both willing and eager to participate in the activities presented to them by their teacher. As indicated by the table, there were more nonverbal gestures recorded than verbal ones.

Nonverbal Gestures

Table 4 indicates that the students clapped, high-fives, and laughed frequently during all four sessions. Jumping up and down after success was more prevalent with the girls than the boys but did occur less often than the other three nonverbal gestures. All of the gestures appeared to occur organically and not from teacher encouragement to do so; the teacher did encourage the group sitting out and waiting their turn to encourage the teams playing. There were a handful of times when students, mainly a couple of boys, had a difficult time dealing with the failure of their group that resulted in them slumping their shoulders, but the action was not prevalent.

Oral Expressions

Oral expressions were consistent throughout the class and predominantly positive. There were no negative remarks made by students, or at least none heard, although it is possible that I could have missed them; however, it appeared there is a school culture that frowns upon making negative comments toward others. There was a significant amount of oral collaboration done in small group settings that was documented. The nonverbal

cues documented were clapping (CL), high five (HF), laughing (L), jumping up and down (J), and shoulder shrug (SHS), and the verbal expressions recorded were positive individual comment (PIC), negative individual comment (NIC), positive team comment (PTC), negative team comment (NTC), positive comment to other team (PCOT), and negative comment to other team (NTOC). A summary of both nonverbal and verbal gestures are captured in Tables 4 and 5, respectively.

Table 2

Summary of Nonverbal Gestures

Code	Session 1	Session 2	Session 3	Session 4
CL	HPB	MPB	HPB	HPB
HF	MPB	MPB	MPB	HPB
L	HPB	HPB	HPB	HPB
J	IB	IB	IB	IB
SHS	IB	IB	IB	IB

Table 3

Summary of Verbal Expressions

Code	Session 1	Session 2	Session 3	Session 4
PIC	MPB	MPB	MPB	HPB
NIC	IB	IB	IB	IB
PTC	MPB	HPB	HPB	MPB
NTC	IB	IB	IB	IB
PCOT	IB	IB	IB	IB
NCOT	IB	IB	IB	IB

Themes

Trochim and Donnelly (2007) stressed the importance of content analysis of qualitative data to identify specific themes. Along the same lines, Creswell (2007)

indicated that a visual model of diagrams to display the relationship amongst themes or concepts is an effective way for a researcher to demonstrate the relationship between themes and subthemes. Understanding that these themes or subthemes are grounded in the data and have come from the comparison and analysis of the data helps the construction of theory.

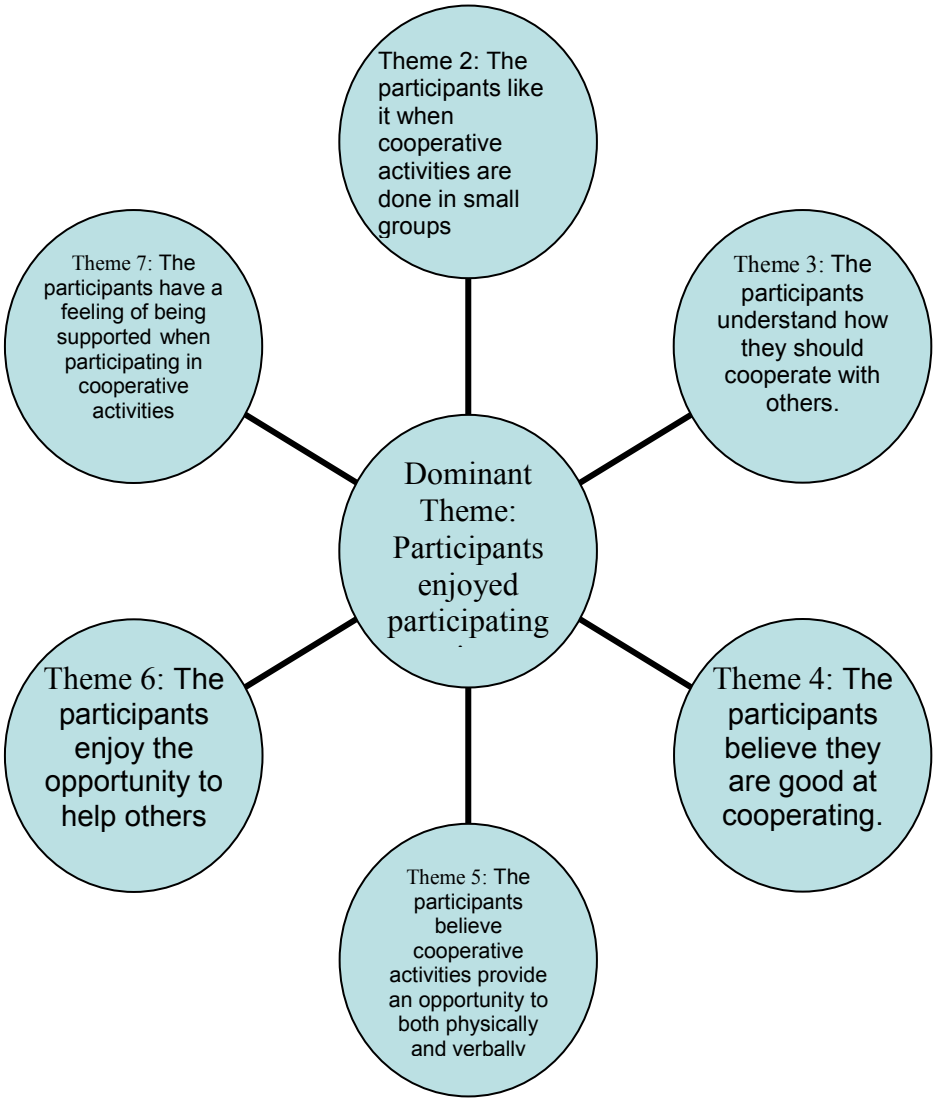

Figure 1. Themes.

Theme 1 (Dominant Theme)

Participants enjoy participating in cooperative activities. This theme emerged from Focus Group Questions 5, 7, 11, 12, and 13, Teacher Interview Questions 2, 6, 9, 10, 13, and 17, and from my personal observations.

In answering Question 5, which asked participants what they liked about cooperation, eight participants thought they were fun. Seven students liked the activities because they get to help others, six of the students liked the aspect that they felt like they were part of a group, and four participants liked the activities because they felt there was equality within the group. All 10 participants mentioned that they were good at cooperating when Question 7 asked them if they were good at cooperating. Question 11 asked the participants how they felt when they are participating in cooperative activities, and seven of the students said, "supported" while three others claimed they felt equal to everyone else. Similar responses were given when Question 12 asked participants if they felt a sense of belonging when working cooperatively in PE. Specifically, eight of the students said "yes" and two said they felt supported sometimes. When participants were asked why they felt the way they did, five students mentioned it was because they felt supported, four responded that it was the equal chance to speak, and one stated that the team working toward a common goal is the reason they felt a sense of belonging. Once again similar responses were given when Question 13 asked the participants what they

liked about cooperative activities in PE class, six of the students mentioned that peers helping each other was why they liked it and four said it was because they got to work with others they normally would not be with.

The answers to Teacher Interview Questions 2, 6, 9, 10, 13, and 17 helped to support the dominant theme. The teacher responded to Question 2, which asked if he felt that a cooperative teaching methodology is useful when teaching PE, in a positive manner and claimed the methodology was useful because the students learn well from each other and like to do so. The teacher noted that the positive peer pressure in a cooperative environment helps the students raise their level of both effort and focus. The teacher also believed that the students' focus and effort is higher in a cooperative environment than it is in a competitive one and mentioned that a competitive environment tends to stress some kids out. These comments indicate that students tend to be highly engaged in cooperative activities and as a result, enjoy participating in them. In answering question six, which asked the teacher if he saw students participate more today than they normally do, he answered “yes” during all four interviews. Similarly, Question 9 asked the teacher if the students participated well during the day's activity. The teacher responded “yes” on all four occasions and thought the students participated well because of the positive support towards each other and since all the students were actively involved. When asked if he believed the students liked the activity in Question 10, the teacher, once again, responded “yes” during all four interviews.

The teacher also responded “yes” all four times he was asked Question 13, which asked if he would perform the activity again. When asked why he would do so, he

referenced the high level of student support and how the activities provide more opportunities to touch the ball than a traditional volleyball game. The last teacher question that supports the dominant theme was Question 17. Specifically, the question asked the teacher if he believed the students' attitudes were positive during the day's activity, and once again, he responded “yes” all four times he was asked and twice said it was due to the kids having success and another two times said it was because the kids did not take the time to dwell on the mistakes they made.

My observations of each session also indicated that the students were enjoying participating in the cooperative activities. Clapping, high fives, and laughing were all denoted as either highly prevalent or moderately prevalent nonverbal gestures seen during all four observations. As for highly prevalent and moderately prevalent verbal gestures, both positive individual comments and positive comments made to one's team were consistent during each observation.

Theme 2

The participants like it when cooperative activities are done in small groups. This theme emerged mainly from the answers of Focus Group Questions 6, 9, 16, 17, and 27 and from my personal observations. When asked in Question 6, “What do you dislike about cooperation?” five participants said, “Sometimes it takes too long to hear everyone's ideas." If the groups are smaller it will negate this issue and allow the activity to move along more quickly than if the group was big. Two participants responded to this question by saying, “I don't like it when my ideas are not heard.” Again, this issue could be minimized if the group is small.

Four participants responded by saying they like small group-based cooperative activities when they were asked Question 9, “Are there certain cooperative activities in PE class you like more than others.” Eight participants responded that most cooperative activities performed in PE are performed in small groups, while two participants said that sometimes these activities are done in big groups when Question 16, asked do you have big groups, small groups, or partners when participating in cooperative activities, was asked. When asked in Question 17, “Does the group size impact how much you enjoy the activity?” all 10 participants said “yes” and gave different rationales for why they answered yes. Six participants claimed that small groups allow for more of a voice and four said they get to play a bigger role in small groups. In answering Question 27, four of the participants said that in big groups not everyone wants to hear your strategies, while six participants claimed that most of the time group members want to hear everyone's strategies.

Observations from the four sessions demonstrated that students were eager, active participants in small group settings designated they enjoyed that type of setting. There were no large group activities for me to observe during the sessions and determine how students might participate in such settings.

Theme 3

The participants understand how they should cooperate with others. Focus Group Questions 1, 2, 3, 4, 15, 30, 32, and 33 helped the third theme to appear. When asked in Question 1, “What is your definition of cooperation?” seven participants responded by saying it is equality in voices, six participants said it was listening to others, and four

participants said being a good sport is what defines cooperation. All 10 participants responded that people helping others is what cooperation looks like when they were asked question two. Nine of those people also said that listening to others is another visible aspect of what cooperation should look like.

In answering Question 3, all 10 participants believed that equality of voices is what cooperation should sound like. Eight participants also said that positive comments should be a characteristic of what cooperation should sound like. The participants continued to define cooperation when they were asked Question 4, "What does it mean to you to cooperate?" Nine participants mentioned helping others, seven of them responded by saying sharing, and six participants added that listening to others is what it means to cooperate. In answering Question 15, seven participants responded by saying teamwork was the main focus of the cooperative activities in PE, two participants mentioned communication, and one participant claimed that helping others was the focus.

All 10 participants answered positively to Question 30, which asked them if they work well with people that are assigned to them. Similarly, all 10 participants responded by saying "no" when they were asked if they should be always be allowed to choose who they would like to work cooperatively with in Question 32. Participants were also able to recognize the attributes of what cooperation should look like in PE class by responding positively to Question 33. Specifically, nine participants responded that a cooperative PE class should have people helping others, seven of the participants mentioned that everyone should have an equal voice and opportunity to participate, and eight participants claimed that everyone should be listening to each other.

The Teacher Interview Questions 4 and 5 also helped to demonstrate that the participants understood how they should cooperate with each other. When asked in Question 4, "Do you see a difference in cooperation levels amongst genders?" the teacher mentioned that the girls are able to cooperate more easily than the boys but that the boys do cooperate well, but tend to take longer to get to a cooperative level. The teacher also responded with an insightful perspective, which aligned with what the participants said, when he was asked if the students work equally well when working in mixed gender groups as they do when they are working in same-sex groups. Recognizing that girls can tend to shy away when working with boys is consistent with my observations.

My personal observations also found that the students, without being told by the teacher how to act, cooperated well with others by supporting one another, cheering each other on, and providing positive comments when things went either well or bad. These behaviors were all either highly prevalent or moderately prevalent during each of the four observed sessions.

Theme 4

The participants believe they are good at cooperating. The emergence of this theme stemmed from the answers to Focus Group Questions 7, 20, 22, 25, 27, and 35. All 10 participants responded positively to Question 7, "Do you feel like you are good at cooperating?" During this response, participants mentioned their listening skills and ability to share ideas as some of the traits that make them good at cooperating. When asked in Question 20, "Do you feel like you cooperate better with members of the same sex, opposite sex, or just as well with either?" seven participants said just as well with

either sex and three of the participants claimed they cooperate better with members of the same sex.

All 10 participants agreed that their classmates help each other when asked Question 22, “Do you feel like students help each other when they are working cooperatively in groups?” When asked in Question 25, “Do people listen to your strategies?” six participants claimed that “most of the time” their classmates listened to their strategies, and four of the participants mentioned that their classmates did not always listen to their ideas. Along the same lines, Question 27 asked, “Do you think students in PE class want to hear everyone's strategies when you're in a group?” Six participants stated that most of the time their classmates wanted to hear everyone's strategies, and four of the participants mentioned that this was not the case in a big group setting. In answer to Question 35, eight of the participants were not sure what aspects of cooperation could be improved upon in PE class, and two of the participants thought nothing could be improved.

Teacher Interview Questions 3 and 9 provided some additional support for the fourth theme. The teacher stated his students know they must be good at cooperating and continue to work at being so. The teacher also mentioned that the students participate in a lot of cooperative work in their classrooms and get feedback about their ability to cooperate. When asked in Question 9, “Do you think the students participated well during today’s activity?” the teacher responded, on four separate occasions, yes. The rationale given by the teacher during three of the interviews was because of the positive support

for each other that he both saw and heard, and because he saw all the students being actively involved.

My personal observations also support the theme that the students believe they are good at cooperating. Although the teacher never gave the students any guidelines for how to cooperate within their small groups, the students showed both a level of comfort and confidence while participating in all cooperative activities. The students never asked the teacher for suggestions on how to either work with their teammates or support them. It could be surmised that if the students did not believe they were good at cooperating, they probably would have looked more confused, made more mistakes in their efforts to work cooperatively, or asked clarifying questions about how to best cooperate.

Theme 5

The participants believe cooperative activities provide an opportunity to both physically and verbally participate equally. In answer to Question 1, seven of the participants, a majority, stated that equality in voices was a significant aspect of cooperation. All 10 participants mentioned "equality in voices" as a characteristic of what cooperation should sound like when they were asked in question three what cooperation should sound like. When asked in Question 4, "What does it mean to you to cooperate," six participants responded by saying "sharing." Similarly, when Question 5 asked participants what they liked about cooperation, four of them mentioned the equality within the group was one reason. In answer to Question 10, all 10 participants responded positively and claimed that cooperative activities do provide students with equal opportunities to participate. When participants were asked why they felt this way, five of

them mentioned the need for everyone to participate in order for the group to accomplish a goal. Four participants also mentioned that when the activity is cooperative and not competitive students tend to not worry so much about winning and involve others. Three participants replied that cooperative activities give students an equal shot to participate, but some students choose not top participate as much as they could.

When participants were asked in Question 12 if they felt a sense of belonging when participating in cooperative activities, four of them mentioned that having an equal chance to speak is why they felt like they belonged to the group. Participants also mentioned both the ability to have more of a say and play a bigger role when asked Question 17, “Does the group size impact how much you enjoy the activity?” In answer to Question 21, eight participants stated that most of the time students cooperate when working together during cooperative activities. Along the same lines, six participants said, “Most of the time their classmates listen to their strategies,” and four participants mentioned that their classmates did not always want to hear their ideas.

When asked in Question 27, “Do you think students in PE class want to hear everyone's strategies when you're in a group?” six participants responded positively and thought that most of the time classmates wanted to hear everyone's strategies; however, four participants felt this was not the case when the activity was being done in big group settings. Participants also responded positively to Question 28, “Do you always get to participate equally during group games?” Specifically, seven participants said that most of the time they get to participate equally and three of them mentioned that there are times when someone tries to take over the activity. Seven participants reiterated that

students should have an equal opportunity to both play and speak when they were asked Question 33, “What should cooperation look like in PE class?”

Teacher Interview Questions 2, 5, 7, 17 also helped to illuminate Theme five. When asked in Question 2, “Do you feel like a cooperative teaching methodology is useful when teaching PE units?” the teacher mentioned that positive peer pressure in a cooperative environment helps students raise their efforts and focus more than a competitive environment. When answering Question 4, the teacher recognized that when boys and girls are working cooperatively together they can do really well, but at times, some of the girls appear to be a bit shy to “put themselves out there.” The teacher also recognized, on two separate occasions, there was a high level of engagement from the students when he was asked in question seven what he thought went well in class. In answer to Question 13, “Would you perform the activity again?” the teacher responded “yes” during each of the four interviews. By the teacher mentioning that all students are getting a lot of touches on the ball, it helps to verify that there was equal participation during each class.

My personal observations also revealed that students were sharing both roles and responsibilities well amongst themselves. It was noted during the observations that there was equality amongst the boys and girls voices when they were playing the games and when they were strategizing. The teacher--led debriefs at the end of class also did not illuminate any inequalities in either participation or voices.

Theme 6

The participants enjoy the opportunity to help others during cooperative activities. This theme emerged from Focus Group Questions 5, 11, 12, 13, 22, and 33, Teacher Interview Questions 2, 7, 9, 13, and 15, and from my observations.

In answer to Question 5, "What do you like about cooperation?" seven participants mentioned that they like helping others. Six participants also said they like the chance to help others when they were asked Question 13, "Describe the things you like about cooperative activities in PE class?" All 10 participants said that students help each other when working cooperatively in PE when responding to Question 22. In answer to Question 33, "What should cooperation look like in PE class?" nine of the 10 participants stated that people helping others should be visible.

The teacher interviews also helped to validate the sixth theme. Specifically, when asked in Question 2, "Do you feel like a cooperative teaching methodology is useful when teaching PE units?" the teacher mentioned that cooperative activities in PE allow students to learn from each other and that they enjoy that process. The teacher also mentioned during two of the four interviews that he noticed a high level of support being given to the less skilled students when he was asked Question 7, "What do you think went well today in class?" Along the same lines, Question 9 required the teacher to provide his perspective on how the students participated after each session, and all four times he stated the students participated well and on three occasions he said they did so because of the high amount of positive support given amongst the students.

In answer to Question 13, “Would you perform the activity again?” the teacher responded “yes” all four times he was asked and also claimed on all four occasions that the reason he would perform the activity was due to the high amount of positive support he saw students providing one another. Finally, when asked in Question 17 if he believed the students felt good about their skills after the activity, he replied “yes” during all four interviews and twice mentioned how he noticed the less-skilled students feeling good and doing so because of the verbal support they were receiving from other students.

From my personal observations I noticed students consistently providing both positive verbal and nonverbal support to one another; positive individual comments were either moderately or highly prevalent behaviors seen during all four observations. Because students were consistently trying to help each other through both verbal support and with physical strategies, it appeared students felt empowered and proud to help one another. It was also interesting to note that the students who were receiving the supportive feedback from their peers did not seem to mind it, find it obtrusive, or unusual.

Theme 7

The participants have a feeling of being supported when participating in cooperative activities. This theme stemmed from Focus Group Questions 11 and 12**,** Teacher Interview Questions 7, 9, 13, and 15, and from my personal observations.

In answer to Question 11, “When you are participating in cooperative activities in PE class, how do you feel?” seven participants mentioned that they felt supported. Five

participants also said they feel supported when they were asked Question 12, “Do you have a sense of belonging to a group when you are working cooperatively in PE class?”

The teacher interviews also helped to support the seventh theme. When asked in Question 7, “What do you think went well today in class?” the teacher mentioned, on two separate occasions, that he saw a lot of positive support of less-skilled students. When answering Question 9, “Do you think the students participated well during today’s activity? If no, why do you think that is? If yes, what makes you believe this?" the teacher claimed he saw the students demonstrating positive support toward one another; he mentioned this during three of the interviews. The teacher also recognized there was a high level of support, on all four occasions, when he was asked in Question 13 if he would perform the activity again. In answer to Question 15, “Do you think the students felt good about their skills after the activity?” the teacher responded “I could tell the less-skilled students felt good about the verbal support they were receiving and the success they were having” during two of the interviews.

From my personal observations, I noticed students consistently providing both positive words of encouragement and nonverbal gestures to those who had made a mistake. With both positive individual comments and positive team comments being either moderately or highly prevalent during all four observations, it was obvious that students understood how to keep morale high and support others. Additionally, students were not getting upset, quitting, or yelling at one another during any of the observations. On multiple occasions students were seen reaching out to those who were struggling to develop the skill being worked on and helping them to remain both involved and positive.

Discrepant Cases

Qualitative data analysis requires a researcher to search for discrepant information that runs counter to the themes (Creswell, 2009). In this study, all of the participant's answers to the focus group questions aligned and did not vary much. The behaviors observed during each of the four observation sessions did not illuminate any divergent cases. All students' behaviors remained within a range of highly supportive to moderately supportive. The students' reactions to both success and failure also remained within a narrow range of reactions and never saw a student have the type of outburst or reaction that required the teacher to interject. Finally, the four teacher interviews did not reveal any variance from what was both observed and heard within each focus group.

Conclusions

The findings in this study stemmed from the four sessions that included observations, focus group questions, and teacher interviews. Although all 18 students were invited to participate in the study, only 10 students chose to be involved. The observations, answers to focus group questions, and teacher interviews demonstrated that the participants felt good participating in cooperative activities in PE class, liked it when the cooperative activities were done in small groups, understood how to cooperate with one another, believe they are good at cooperating, believe cooperative activities provide an opportunity to both physically and verbally participate equally, and enjoy the opportunity to help others.

While observing the students, I found there were very few students who became visibly upset when their team was not having success. The few students who became

frustrated were able to keep it to themselves and not have any verbal outbursts. It appeared their frustrations were limited to some slumping of shoulders for a short time and that they were all able to gather themselves and remain as active contributors to their respective groups. It was obvious the students were having fun and enjoying the autonomy that came with the cooperative activities.

This chapter included a description of the population group investigated in this study, how participants were protected, the role of the researcher, the procedures utilized to guarantee quality of the data collected and recorded, and the methods used to analyze the data collected. The final chapter reviews the findings of the study. The final chapter will allow me to discuss how the findings and conceptual framework relate to one another, make conclusions, and identify implications for social change while making recommendations for further studies.

Chapter 5: Summary, Conclusions, and Recommendations

Introduction

Although PE programs have been recognized as one of the many available opportunities to help combat the obesity epidemic(CDC, 2009), a cooperative-based PE program has not been studied to determine how kids might either feel about it or participate in it. The need for physical education programs to provide safe, supportive environments that promote both a joy for movement and the skills necessary to be active are paramount to addressing obesity. Cooperative education in a classroom environment has been studied extensively and identified as a useful form of pedagogy (Kyndt et al., 2013). Cooperative physical education, however, has not been thoroughly investigated or identified as a way of either increasing participation or interest in PE class. Quite often, traditional sports taught in traditional fashions allow for highly skilled students to dominate and as a result, minimize the opportunity others might have to be highly involved.

This method of teaching can be questioned around its' ability to involve the majority of students and provide them with an equitable opportunity to participate in PE class. Most PE teachers, curriculum writers, and administrators would probably agree that PE curriculum should aim to motivate students to participate while providing them with the opportunity to develop skills. Since cooperative education has a history of involving students in small groups, it was anticipated that students would be actively engaged.

This study focused on understanding middle school students perceptions and attitudes toward cooperative activities in PE class. The intention was to determine if the

students believed the activities were either useful or useless when presented in PE class. As the findings signify, the students, overall, had a positive experience participating in the activities and had both positive and insightful thoughts about their involvement in the activities. There is a culture of cooperative-based work at the school and provides the students with a lot of opportunities to participate in cooperative learning. High, active participation rates in PE at this school is also a norm. The findings from this study do not intend to say that results would be similar at either other private schools or public schools.

Chapter 1 of this study established PE as one realm in which the obesity epidemic can be addressed and revealed that student perception of cooperative activities in PE have yet to be assessed. Three questions were answered during this study. The primary question asked what are the attitudes and perceptions of middle school students toward cooperative activities in physical education. Question 2 asked how middle school students perceive cooperative learning activities in PE class, and Question 3 asked about how these students feel when participating in cooperative activities in PE class. The theoretical framework for this study were the social cognitive theory and the competence motivation theory. Both theories have been utilized in physical activity environments associated with youth that aimed to help make sense of the behaviors seen in young children and teens.

In Chapter 2 of this study, a literature review on the subject of attitude and cooperative education was conducted. There was no mention of how cooperative activities are used or viewed in a PE setting. Many authors recognized cooperative

learning as an acceptable, well established approach to learning a variety of academic situations and with a wide-range of ages; but, no study was found to determine how middle school students participate in a cooperative-based PE curriculum. The limited research on cooperative learning in PE has not focused on specific sport-related skill development, rather more on traditional group cooperative activities.

Research design and methodology were discussed in Chapter 3 of the study. This is a qualitative case study guided by the social cognitive theory and competence-motivation theory. Middle school students and their teacher at a private school in San Francisco participated in the study. Ten students sat for focus group interviews with me after each of the four observations, and the teacher also participated in four interviews with me. I observed PE classes and recorded field notes to go along with the focus groups and teacher interviews.

Findings of the study were discussed in Chapter 4. The different types of data were triangulated to compare focus group interviews to what was documented during class observations and with teacher interviews. The data showed and supported a strong correlation between cooperative activities in PE and positive student attitudes toward them. No discrepant cases were found, and participants were pretty well aligned with how they perceived and felt about the cooperative activities they encountered in PE. In this section, I will discuss the findings of the study in relation to my three research questions, what these findings mean to PE curriculum, and what future possibilities are relevant for this area of study.

Interpretation of Findings

In this section, I will discuss and interpret the findings in relation to the three research questions. The three questions assess the influence cooperative activities in PE class have on student perceptions and attitudes toward them. With the social cognitive theory deemed as an appropriate framework to understand physical activity levels in youth, and the competence motivation theory asserting that physical activity levels can increase when a person's perception of competence improves, both theories align with the notion that cooperative learning relies upon both a supportive environment and appropriate level of challenge to help build the confidence of participants. Enjoying both the opportunity to help peers and the feeling of being supported emerged as themes from the study and means that there could be an increase in students' confidence level when they encounter difficult physical activities, and as a result, could possibly increase a student's desire to be physically active. When students work cooperatively together in PE they can learn from each other and feel supported. Students can have equal opportunities to participate both verbally and physically, support one another, and practice helping each other learn and apply skills. All of these findings support the social cognitive theory and competence motivation theory.

Attitudes and Perceptions Toward Cooperative Activities

What are the attitudes and perceptions of middle school students toward cooperative activities in physical education? Following are the subset of questions:

1. How do middle school students perceive cooperative learning in physical education class?

2. How do middle school students feel when participating in cooperative activities in physical education class?

Cooperative learning, for the purpose of this study, was defined as an instructional model in which students work together in small, structured, heterogeneous groups, and aim to help each other while working to achieve a group goal. Dyson and Rubin (2003) stated that cooperative learning can help students improve motor skills, develop social skills, work together, help others improve their skills, take responsibility for their own learning, learn to give and receive feedback, develop responsibility, and have fun in PE classes. Both the students and teacher reiterated many of these aspects and recognized how cooperative activities nurtured these concepts.

Hannon and Ratliffe (2004) noted that cooperative learning in PE can increase student enjoyment within the class and allow students to internalize their own learning while applying the principles being taught. Students are being asked to effectively apply interpersonal skills, individual accountability, positive interdependence, and group processing skills that do not come without practice. Dyson et al. (2010) stated the need for extensive amount of research, practice, and organization from a teacher to correctly facilitate cooperative learning. The cooperative learning process can provide students with a positive support network and create an environment more conducive to learning. Students can also feel more inclined to participate when they have support from their group members. Dyson and Rubin (2003) posited that many students find it difficult to communicate effectively with peers and need to be taught social skills. Because it is widely accepted that cooperative learning challenges students to work closely with one

another to accomplish tasks, it is recommended that time be spent engaging in and promoting positive social interactions before presenting cooperative activities (Dyson et al., 2010).

Research Question 1 asked, What are the attitudes and perceptions of middle school students toward cooperative activities in physical education? In this study, it became clear that the students spent a significant amount of time working cooperatively in academic classes and were expected to be adept at doing so. During one of the teacher's interviews he mentioned that the students spend a lot of time working cooperatively in the classroom and were expected to be good at working cooperatively. This was evident by the students consistently exhibiting socially acceptable behaviors and appropriate interactions with one another during all of the observed cooperative activities. One of the themes that emerged from this study was that the participants enjoyed the opportunity to help others. Although the study did not assess how effective the students were at helping one another or giving and receiving feedback, it was clear the students were accustomed to this type of process and felt comfortable participating.

The student participants in this study and the students who were observed helped the emergence of the themes that the participants felt they were good at cooperating and that they understood how to cooperate with one another. Potentially, because the participants felt this sense of competence when cooperating with others that they felt good participating in cooperative activities and had positive attitudes toward the activities. Because it appears cooperative-based work is a cultural norm at the school, the students would have significant opportunities to become adept at working cooperatively

and develop their confidence in doing so. Bradford et al. (2014) recognized cooperative learning as a process that requires significant teacher feedback and multiple opportunities for students to practice working cooperatively. Had this study occurred with students who had never encountered cooperative activities, the attitudes and perceptions might not have been as favorable.

Perceptions on Cooperative Learning Activities in PE Class

Research Question 2 focused on, How do middle school students perceive cooperative learning activities in physical education class? Constantinou (2010) stated that cooperative learning in PE class is not a traditional approach, yet is capable of helping students learn how to respect and accept one another and the strengths and weaknesses each student brings to class. By having these attributes, cooperative activities in PE class can foster positive perceptions from students who feel this acceptance and support. The majority of participants in this study appreciated the feeling of being supported by their classmates, and in return, this could have aided in their development of having positive perceptions toward cooperative activities. Along the same lines, the study participants also enjoyed the opportunity to help others. Although the participants did not mention that they felt empowered when participating in cooperative activities, they obviously were and had the autonomy to make their own decisions. Bryan and Solomon (2012) noted that by providing a sense of autonomy PE teachers can increase levels of self-determination. The social cognitive theory, which helped to guide this study, also aligns with the belief that students enjoy and feel better when they are able to exert a certain level of control over the physical activities they are involved with. It would make

sense that students' perceptions are positive toward cooperative-based activities that fosters student autonomy and offers the type of support from a teacher that promotes student empowerment.

Students Feelings When Participating in Cooperative Activities

Research Question 3 was, How do middle school students feel when participating in cooperative activities in physical education class? With enjoyment serving as one of the key predictors of student participation in PE class (Smith & St. Pierre, 2009), it is paramount to understand how to provide an enjoyable, challenging PE curriculum. When students enjoy the PE curriculum and feel good about it they tend to participate more and learn the skills being taught (Graham, 2008). The majority of the participants in this study felt that the cooperative activities they participated in were both helpful and enjoyable. With a high level of engagement and enjoyment documented during the observations, it was obvious the students were eager about the activities and the opportunity to both problem solve and work on their own. It also came to light during the focus groups that the participants felt better when the cooperative activities were done in small groups and not big ones.

The positive feelings the students had toward the cooperative activities were clearly affected by the respectful and inclusive social interactions they had with one another, the fun they had, and the benefits they felt from the activities. Liu et al. (2008) stated how social interactions, enjoyment, and perceived health benefits are critical elements in the development of middle school students' attitudes toward PE classes. Although the participants in the study did not allude to any specific health benefits, they

did recognize how the activities offered everyone an equal chance to equally participate verbally and physically, and this could be seen as supporting the development of both mental and physical health.

Implications for Social Change

The findings of the study show that middle school students have positive attitudes and perceptions of cooperative activities in PE class. PE teachers should embrace these findings and use cooperative activities as a way to provide productive, active, and challenging curriculum to their students. With a cooperative environment and proper facilitation from a teacher, student participation should increase, and the students will feel a greater sense of ownership with the curriculum. The atmosphere in which students are empowered is significantly different than the one where the teacher is engaged in direct instruction. Dyson et al. (2010) noted that cooperative learning is a useful alternative to the direct instruction that is highly prevalent in physical education curriculum. When students have the autonomy to alter game play and are empowered to do so they are practicing social interdependence and social skills. An additional benefit to a cooperative approach in PE is that most kids will be developing the skills necessary to participate effectively. Mueller and Fleming (2001) stated that many middle school students are without the skills required to work cooperatively and need them to be taught, demonstrated, and practiced before they can be effective at working cooperatively. It could be argued that these skills are critical life skills that middle school students need to learn. Cooperative activities in PE class can support the nurturing and development of these skills if the teacher is willing to structure the class correctly.

Cooperative learning has become an acceptable teaching methodology in the world of academia; but, Lee noted that research around how cooperative learning is applied in PE is lacking. One possible reason for this could stem from a shortage of PE teachers trained to facilitate cooperative-based activities. This adds another possibility to infuse some social change by training PE teachers to utilize this methodology. Lee recommended training PE teachers to become competent in facilitating cooperative learning. It has also been recognized that planning cooperative activities does require a significant amount of planning and an array of effective teaching skills (Igel & Urquhart, 2012). By recognizing the unique teacher skills and planning necessary to effectively facilitate cooperative activities in PE, those who train PE teachers and design curriculum should take note and aim to increase the prevalence of teachers capable of applying this methodology.

Limitations of the Study

One limitation that was mentioned in Chapter 1 was that the population would be limited to students attending a private school. With cooperative work being highly prevalent in the students' classrooms, it was obvious they had a clear understanding of the attributes and behaviors associated with cooperative work. This could make the participants attitudes and behaviors toward cooperative activities in PE class more positive than a group of students who did not have much experience working cooperatively with their peers. The teacher interviews provided evidence that cooperative education could be considered a cultural norm within the school. The students had not

consistently participated in cooperative-based PE activities aimed at helping them develop sport-related skills.

Another possible limitation mentioned in Chapter 1 alluded to how participants might want to please the researcher and provide answers that they believe would do so. Through member checking and triangulation, I did not notice any statements provided during the focus groups that did not align with my observations or from the teacher interviews. During the four focus group sessions, I did not notice any of the participants seeking my approval when they responded. Candid, quick responses were provided most of the time, and it seemed like the participants were open to telling me what they did not like about cooperative activities.

Recommendations for Further Study

I used a convenience sample of 10 children between the ages of 11-12 years and attend a private school in San Francisco. A similar study should be conducted among a public school population around the same age. The children were accustomed to and familiar with working cooperatively in their classrooms. Because the teacher never had to explain what cooperative work should look like in PE class and the students appeared to be both comfortable and familiar with working cooperatively, the students displayed a high level of comfort with both working cooperatively and speaking eloquently about their feelings and attitudes about cooperative activities in PE. A study with students who have less experience working cooperatively could provide different perspectives and attitudes about cooperative activities are perceived.

Other studies involving a more diverse population group should be conducted since the group studied was not overly varied in either racial or socioeconomic terms. I would also suggest other studies within all middle school grades and fifth grade. Finding teachers competent at facilitating a cooperative-based PE curriculum could be challenging, so studies aimed at determining the readiness of PE teachers to conduct cooperative activities could also add to the body of research surrounding cooperative physical education.

Conclusion

This study adds to the available research on cooperative education in a physical education setting. But it needs to be determined how effective cooperative activities can be in public school settings and with more diverse population groups. This study does show that students who understand how to work cooperatively do have positive attitudes toward cooperative activities in PE class.

It appears the barrier to increasing the prevalence of cooperative-based PE curriculum at the middle school level is the lack of research alluding to its' effectiveness. Many PE teachers are unaware of how to properly facilitate cooperative activities and of its' potential. The majority of PE teachers are using a direct instruction methodology and are probably pretty comfortable doing so. Teachers need to be involved in future studies on cooperative activities in PE.

I was concerned about students providing honest, descriptive answers during the focus groups that would divulge their true feelings. After the first focus group and noticing the mature and serious nature of the students, my concern was minimized. The

participants were all extremely comfortable speaking about their experiences and how they felt participating in the cooperative activities they had never encountered. With the students' responses aligning with what I observed and how the teacher felt the students participated also helped to quell my concerns; triangulating the data also downplayed my concern.

My thoughts around middle school students participating in cooperative activities in PE class were altered during this study. Beforehand, I felt students would have a more mixed review of cooperative activities in PE class. The majority of participants enjoyed cooperative activities for the same reasons and understood how they benefited both themselves and others. It was also surprising to see how well the students cooperated together and the respectful, kind nature in which they did so. I believe the culture of the school helped to develop students capable of such mature behaviors.

This study demonstrates that middle school students have positive attitudes and perceptions toward cooperative activities in PE class. This influences how students perceive PE class, participate in class, and interact with their peers.

References

Aktop, A., & Karahan, N. (2012). Physical education teacher's views of effective teaching methods in physical education. *Social and Behavioral Sciences,46* (2), 1910-1913.

Bandura, A. (1986). *Social foundation of thought and action. A social cognitive theory.* Englewood Cliffs, NJ: Prentice Hall.

Barkoukis, V., idou, E., Tsorbatzoudis, H., & Grouios, G. (2012). School and classroom goal structures: Effect on affective responses in physical education. *Physical Educator,69* (3), 211-227.

Barney, D. (2003). Factors that impact middle school student's attitudes and perceptions in physical education. *Research Quarterly for Exercise and Sport, 74* (1), 23-36.

Barr-Anderson, D.J., Neumark-Sztainer,D., Schmitz, K.H. (2008). But I like pe: Factors associated with enjoyment of physical education class in middle school girls. *Research Quarterly for Exercise and Sport, 79* (1), 18-27. doi:10.1080/02701367.2008.10599456

Bauman, A., Bull, F., Chey, T., Craig, C.L., Ainsworth, B.E., Sallis, J.F., … The IPS group. (2009). The international prevalence study on physical activity: results from 20 countries. *International Journal of Behavioral Nutrition and Physical Activity, 6* (21), 6-21.

Beighle, A., & Erwin, H.E. (2013). FRIG'N Physical Education: Management strategies to maximize physical activity. *Journal of Physical Education, Recreation & Dance, 84* (1), *16-17.*

Belton, S., & Donncha, C. (2010). Reliability and validity of a new physical activity self-report measure for younger children. *Measurement in Physical Education & Exercise Science*, *14*(1), 15-28.

Bernstein, E., Philips, S.R., & Silverman, S. (2011). Attitudes and perceptions of middle school students toward competitive activities in physical education. *Journal of Teaching in Physical Education, 30*(1), 69-83.

Block, M.T., Taliaferro, A., Harris, N., & Krause, J. (2010). Using self-efficacy theory to facilitate inclusion in general physical education. *Journal of Physical Education, Recreation and Dance, 81*(3), 43-46.

Boyce, B.A. (2009). Creating instructional environments that keep students on target. *Journal of Physical Education, Recreation & Dance, 80*(1), 49-56.

Boyle-Holmes, T., Grost, L., Russell, L., Laris, B.A., Robin, L., Haller, E., Potter, S., & Lee, S. (2010). Promoting elementary physical education: Results of a school-based evaluation study. *Health Education & Behavior, 37*(3), 377-389.

Bradford, B.D., Hickson, C.N., & Evaniew, A.K. (2014). The cooperative equation: An effective approach in elementary school physical education. *Physical & Health Education Journal*, *80*(3), 6-13.

Brezzo, R.D., Glave, P., GrayM., Lirgg, C.D. (2012). Comparison of a PE4life curriculum to a traditional physical education curriculum. *Journal of Physical Education and Sport, 12*(3), 245-252.

Bryan, C.L., & Solmon, M.A. (2012). Student motivation in physical education and engagement in physical activity. *Journal of Sport Behavior, 35*(3), 267-285.

Bulger, S.M., Housner, L.D., & Lee, A.M. (2008). Curriculum alignment: A view from physical education teacher education. *Journal of Physical Education, Recreation & Dance, 79* (7), 44-49. doi:10.1080/07303084.2008.10598215

Cairney, J., Kwan, M.YW., Veduizen, S., Hay, J., Bray, S.R., Faught, B.E. (2012). Gender, perceived competence and the enjoyment of physical education in children: a longitudinal examination. *International Journal of Behavioral Nutrition and Physical Activity, 9*(26), 1-9.

Casey, A., Dyson, B, & Campbell, A. (2009). Action research in physical education: focusing beyond myself through cooperative learning. *Educational Action Research,17*(3), 407-423.

Centers for Disease Control and Prevention (n.d.). *Child Obesity Facts*. Retrieved from http://www.cdc.gov/obesity/data/childhood.html

Charmaz, K. (2006). Constructing grounded theory, London: Sage.

Chen, A., & Ennis, C.D. (2004). Goals, interests, and learning in physical education. *Journal of Educational Research, 97*(6), 329-338.

Chen, S., Chen, A., & Zhu, X. (2012). Are K-12 learners motivated in physical education? A meta-analysis. *Journal of Physical Education, Recreation and Dance,83*(1), 36-48.

Chen, W. (2011). Motivational determinants of elementary school students' participation in physical activity: A preliminary validation study. *International Journal of Applied Educational Studies,10*(1), 1-17.

Cherubini, J. (2009). Positive psychology and quality physical education. *Journal of Physical Education, Recreation and Dance, 80*(7), 42-47. doi:10.1080/07303084.2009.10598356

Choi, W., & Chepyator-Thompson, R. (2012). Physical education teachers teaching in a multicultural setting: A case study of teacher knowledge and practice. *Journal of Physical Education and Sport, 12*(4), 436-444.

Chorney, D.W. (2009). Today's physical education teachers: An inquiry into exceptional practice. *Alberta Journal of Educational Research, 55*(2), 171-184.

Chorney, D. (2011). The need to re-conceptualize physical and health education in schools. *Physical & Health Education Journal, 77*(2), 6-15.

Clarke, A. E. (2005). *Situational analysis: Grounded theory after the postmodern turn.* Thousand Oaks, Ca: Sage.

Connors, P., Bednar, C., & Klammer, S. (2015). Cafeteria factors that influence milk-drinking behaviors of elementary school children: Grounded theory approach. *Journal of Nutrition Education*, *31*(1), 31-36.

Constantinou, P. (2010). Keeping the excitement alive: Tchoukball and cooperative learning. *Journal of Physical Education, Recreation and Dance, 81*(3), 30-35.

Constantinou, P., Manson, M., & Silverman, S. (2009). Female students' perceptions about gender-role stereotypes and their influence on attitude toward physical education. *Physical Educator,66*(2), 85-96.

Corbin, C.B., & Mckenzie, T.L. (2008). Physical activity promotion a responsibility for both K-12 physical education and Kinesiology. *Journal of Physical Education, Recreation, & Dance, 79*(6) 2008.

Cox, A., Duncheon, N., & McDavid, L. (2009). Peers and teachers as sources of relatedness perceptions, motivation, and affective responses in physical education. *Research quarterly for Exercise and Sport,80*(4), 765- 773.

Cox, A.E., Smith, A.L., & Williams, L. (2008). Change in physical education motivation and physical activity behavior during middle school. *Journal of Adolescent Health,43*(5), 506-513. doi:10.1016/j.jadohealth.2008.04.020

Creswell, J.W. (2003). *Research Design: Qualitative, quantitative, and mixed-methods approaches.* Thousand Oaks, Ca: Sage.

Creswell, J.W. (2007). *Qualitative inquiry and research design: Choosing among the five traditions.* Thousand Oaks, Ca: Sage.

Crombie, P.A., Brunet, J., & Sabiston, C.M. (2011). Stop staring! Proposed strategies to reduce students body-related concerns in physical education. *Journal of Physical Education, Recreation and Dance, 82*(2), 39-43.

Culpepper, D.O., Tarr, S.J., & Killion, L.E. (2011). The role of various curriculum models on physical activity levels. *Physical Educator, 68*(3), 163-171.

Dauenhauer, B.D., & Keating, X.D. (2011). The influence of physical education on physical activity levels of urban elementary students. *Research Quarterly for Exercise and Sport,82*(3), 512-521.

Davis, K., & Nicaise, V. (2011). Teacher-student interactions: Four case studies of gender in physical education. *Journal of Classroom Interaction, 46*(2), 11-23.

Dyson, B. (2002). The implementation of cooperative learning in an elementary school physical education program. *Journal of Teaching in Physical Education,22*, 69-85.

Dyson, B., Linehan, N., & Hastie, P. (2010). The ecology of cooperative learning in elementary physical education classes. *Journal of Teaching in Physical Education, 29* (3), 113-130.

Dyson, B., & Grineski, S. (2001). Using cooperative learning structures in physical education. *Journal of Physical Education, Recreation & Dance, 72*(2), 28-31. doi:10.1123/jtpe.29.2.113

Dyson, B., & Rubin, A. (2003). Implementing cooperative learning in elementary physical education. *Journal of Physical Education, Recreation & Dance, 74*(1), 48-55.

Dyson, M., & Plunkett, M. (2012). Making a difference by embracing cooperative learning practices in an alternate setting: An exciting combination to incite the educational imagination. *Journal of Classroom Interaction, 47*(2), 13-24.

Eather, N., Morgani, P.J., & Lubans, D.R. (2013). Social support from teachers mediates physical activity behavior change in children participating in the fit-4-fun intervention. *International Journal of Nutrition and Physical Activity*, *10*(1), 1-15.

Fairclough, SJ. & Stratton, G. (2006). A review of physical activity levels during elementary school physical education. *Teach Physical Education*, 25 (2), 239-257.

France, T.J., Moosbrugger, M., & Brockmeyer, G. (2011). Increasing the value of physical education in schools and communities. *Journal of Physical Education, Recreation & Dance, 82*(7), 48-51.

Gagen, L., & Getchell, N. (2004). Comninig theory and practice in the gymnasium: "Constraints" within an ecological perspective. *Journal of Physical Education, Recreation and Dance*, *75*(5), 25-30.

Gao, Z., Lee. A.M., Xiang, P., & Kosma, M. (2011). Effect of learning activity on students' motivation, physical activity participation and effort/persistence. *International Council for Health, Physical Education, Recreation, Sport, and Dance Journal*, *6*(1), 27-33.

Glaser, B. (1998). *Doing grounded theory: Issues and discussions.* Mill Valley, Ca: Sociology Press.

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.

Gold, R.R., Petrella, J., Angel, J., Ennis, L.S., Woolley, T.W. (2012). The qualities of physical education teachers based upon students' perceptions of physical appearance. *Journal of Instructional Psychology, 39*(2), 92-104.

Graham, G. (2008). Children's and adult's perceptions of elementary physical education. *Elementary School Journal,108*(3), 241-249.

Graser, S.V., Sampson, B.B., Pennington, T.R., & Prusak, K.A. (2011). Children's perceptions of fitness self-testing, the purpose of fitness testing and personal health. *Physical Educator, 68*(4), 175-187.

Grasten, A., Jaakkola, T., Liukkonen, J. Watt, A., & Yli-Piipari, S. (2012). Prediction of enjoyment in school physical education. *Journal of Sports Science and Medicine,11*, 260-269.

Halvari, H., Skjesol, K., & Bagoien, T.E. (2011). Motivational climates, achievement goals, and physical education outcomes: A longitudinal test of achievement goal theory. *Scandinavian Journal of Educational Research,55* (1), 79-104.

Hannon, J.C., & Ratliffe, T. (2004). Cooperative learning in physical education. *Strategies, 17*(5), 29-32.

Hansen, K., & Parker, M. (2009). Climbing: An experience with responsibility. *Journal of Physical Education, Recreation and Dance, 80*(2), 17-24.

Hein, V., Ries, F., Pires, F., Caune, A., Emeljanovas, A., Ekler, H., & Valantiniene, I. (2012). The relationship between teaching styles and motivation to teach among physical education teachers. *Journal of Sports Science and Medicine,11*(24), 123-130.

Hill, G., & Hannon, J.C. (2008). An analysis of middle school students physical education physical activity preferences. *Physical Educator,65*(4), 180-194.

Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2012). Rigour in qualitative case-study research. *Nurse Researcher, 20*(4), 12-17.

Huang, H.H., & Chiu, C.K. (2006). Propsing student learning in physical education by applying social cognitive theory. *Journal of American Academy of Business, 9*(2), 280-284.

Igel, C., & Uruhart, V. (2012). Generation Z, meet cooperative learning. *Middle School Journal, 43*(4), 16-21. doi:10.1080/00940771.2012.11461816

James, A.R., Griffin, L.L., & France, T. (2005). Perceptions of assessment in elementary physical education: A case study. *Physical Educator, 62*(2), 85-95.

Kahan, D. & McKenzie, T.L. (2015). The potential and reality of physical education in controlling overweight and obesity. *American Journal of Public Health*, 105 (4), 653-659.

Kretchmar, S. (2008). The increasing utility of elementary physical education: A mixed blessing and unique challenge. *Elementary School Journal, 108*,(3), 161-170.

Kulinna, P.H. (2008). Models for curriculum and pedagogy in elementary school physical education. *Elementary School Journal, 108*(3), 219-227.

Kyndt, E., Raes, E., Lismont, B., Timmers, F., Cascallar, E. & Dochy, F. (2013). A meta-analysis of the effects of face-to-face cooperative learning. Do recent studies falsify or verify earlier findings? *Educational Research Review, 67*(6), 3-18.

Lafleur, M., Cole, B.L., Banthia, R., Sivasubramanian, R., & Garcia, R. (2013). Physical education and student activity: Evaluating implementation of a new policy in Los Angeles public schools. *Annals of Behavioral Medicine: A Publication of the Society of Behavioral Medicine*, *45*(1), 122-130.

Lafont, L., Proeres, M., & Vallet, C. (2007). Cooperative group learning in a team game: role of verbal exchanges among peers. *Social Psychology of Education, 10,* 93-113.

Lee, T.E. (2014). Effects of cooperative learning strategy on the effectiveness of physical fitness teaching and constraining factors. *Mathematical Problems in Engineering.*

Liu, W., Wang, J. & Xu, F. (2008). Middle school children's attitudes toward physical activity. *Journal of Research, 3*(2), 78-85.

Liukkonen, J., Barkoukis, V., Watt, A., & Jaakkola, T. (2010). Motivational climate and students' emotional experiences and effort in physical education. *Journal of Educational Research, 103*, 295-308.

Lohrmann, D., YoussefAgha, A., & Jayawardene, W. (2014). Trends in body mass index and prevalence of extreme high obesity among Pennsylvania children and adolescents, 2007-2011: Promising but cautionary. *American Journal of Public Health*, *104*(4), 62-68.

McKenzie, T.L., & Lounsbery, M.A. (2013). Physical education teacher effectiveness in a public health context. *Research Quarterly for Exercise and Sport*, *84*(4), 419-430.

McKenzie, T.L., & Lounsbery, M.A. (2014). The pill not taken: Revisiting physical education teacher effectiveness in a public health context. *Research Quarterly for Exercise and Sport*, *85*(3), 287-292.

Medcalf, R., Marshall, J., Hardman, K., & Visser, J. (2011). Experiences and perceptions of physical education. *Emotional and Behavioural Difficulties, 16*(2), 189-206.

Metzler, M.W. (2011). *Instructional models for physical education* (3rd ed.). Arizona: Holcomb Hathaway.

Mohammed, H.R., & Mohammad, M.A. (2012). Students opinions and attitudes toward physical education classes in Kuwait public schools. *College Student Journal, 46*(3), 550-566.

Moore, E., Johnson, C., & Thornton, M. (2013). Planning effective outdoor lessons for physical education. *Journal of Physical Education, Recreation, & Dance, 84*(5), 11-13.

Moreno, J.A., Gonzalez-Cutre, D., Martin-Albo, J., & Cervello, E. (2010). Motivation and performance in physical education: An experimental test. *Jounral of Sports Science and Medicine, 9*(1), 79-85.

Morgan, P. (2008). Teacher perceptions of physical education in the primary school: Attitudes, values and curriculum preferences. *Physical Educator,65*(1), 46-56.

Mouratidis, A., Vansteenkiste, M., Lens, W., & Auweele, Y.V. (2009). Beyond positive and negative affect: Achievement goals and deiscrete emotions in the elementary physical education classroom. *Psychology of Sport and Exercise, 10*(3), 336-343.

Mueller, A. & Fleming, T. (2001). Cooperative learning: Listening to how children work at school. *Journal of Educational Research, 94*(5), 259-265.

Office of Disease Prevention and Health Promotion (n.d.) *Healthy People 2020*. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/physical-activity

Office of Disease Prevention and Health Promotion (n.d.) *Healthy People 2020*. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health

Office of Disease Prevention and Health Promotion (n.d.) *Healthy People 2020*. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/physical-activity/objectives

Panicucci, J. (2008). *Achieving fitness. An adventure activity guide.* Project Adventure. Beverly, MA.

Pannekoek, L., Piek, J.P., & Hagger, M.S. (2013). Motivation for physical activity in children: A moving matter in need of study. *Journal of Human Movement Science, 10*(32), 1097-1115.

Patton, Q.M. (2002). *Qualitative evaluation and research methods*. Thousand Oaks, Ca: Sage.

Philips, R.S., & Silverman, S. (2012). Development of an instrument to assess fourth and fifth grade students' attitudes toward physical education. *Measurement in Physical Education & Exercise Science,16*(4), 316-327. doi:10.1080/1091367X.2012.693359

Phillips, S.R. (2012). Competitive activities in physical education: How do students perceive fun? *Physical Educator, 45*(1), 19-22.

Quay, J., & Peters, J. (2008). Skills, strategies, sport, and social responsibility: reconnecting physical education. *Journal of Curriculum Studies, 40*(5), 601-626.

Rikard, L.G. & Banville, D. (2006). High school student attitudes about physical education. *Sport Education and Society,11*(4), 385-400.

Rosenkranz, R.R., Lubans, D.R., Peralta, L.R., Bennie, A., Sanders, T. & Lonsdale, C. (2012). A cluster-randomized controlled trial of strategies to increase adolescents' physical activity and motivation during physical education lessons: the motivating active learning in physical education trial. *Public Health, 12*(8), 34-45.

Ryan, S., Fleming, D., & Maina, M. (2003). Attitudes of middle school students toward their physical education teachers and classes. *Physical Educator,60*(2), 28-42.

Sallis, J.F., McKenzie, T.L., Beets, M.W., Beighle, A., Erwin, H., & Lee, S. (2012). Physical education's role in public health: Steps forward and backward over 20 years and hope for the future. *Research Quarterly for Exercise and Sport, 83*(2), 125-135.

Shen, B., McCaughtry, N., Martin, J., & Fahlman, M. (2009). Effects of teacher autonomy support and students' autonomous motivation on learning in physical education. *Research Quarterly for Exercise and Sport, 80*(1), 44-51.

Singleton R.A., & Straits, B.C. (2005), *Approaches to social research* (4th ed.). New York, NY: Oxford University Press.

Smith, M.A., & St. Pierre, P.E. (2009). American and English secondary students' perceptions of enjoyment in physical education. *Physical Educator, 66*(4), 209-221.

Solomon, M.A. (2006). Creating a motivational climate to foster engagement in physical education. *Journal of Physical Education, Recreation and Dance, 77*(8), 15-22.

Solomon, M.A. (2015). Optimizing the role of physical education in promoting physical activity: A social-ecological approach. *Research Quarterly for Exercise and Sport, 86*(4), 329-337.

Stelzer, J. (2005). Promoting healthy lifestyles: Prescriptions for physical educators. *Journal of Physical Education, Recreation & Dance, 76*(4), 26-44.

Strand, B., & Bender, V. (2011). Knowledge and use of appropriate instructional strategies by physical education teachers. *Physical Educator, 68*(1), 2-17.

Subramaniam, P.R., & Silverman, S. (2007). Middle school students' attitudes toward physical education. *23*(5), 602-611.

Tjeerdsma, B.L. (1995). How to motivate students…Without standing on your head! *Journal of Physical Education, Recreation & Dance, 66* (5), 36-39.

Trochim, W.K., & Donnelly, J.P. (2007). *The research methods knowledge base* (3rd ed.). Mason, OH: Thomson Corporation.

Vlachopoulos, S.P., Katartzi, E.S., & Kontou, M.G. (2013). Fitting multidimensional amotivation into the self-determination theory nomological network: Application in school physical education. *Measurement in Physical Education and Exercise Science,* (17), 40-61.

Wadsworth, D.D., Robinson, L.E., Rudisill, M.E., Gell, N. (2013). The effect of physical education climates on elementary students' physical activity behaviors. *Journal of School Health, 83*(5), 306-313.

Winter, S. (2009). Childhood obesity in the testing era: What teachers and schools can do! *Childhood Education, 85*(5), 283-288.

Wonseok, C., & Chepyator-Thomson, R. (2012). Physical education teachers teaching in a multicultural setting: A case study of teacher knowledge and practice. *Journal of Physical Education and Sport,12*(4), 436-444.

World Health Organization (n.d.). *Global Strategy on Diet Physical Activity and Health*. Retrieved from http://www.who.int/dietphysicalactivity/childhood_schools/en/

Xiang, P., Solmon, M., & McBride, R. (2006). Teachers and students conceptions of ability in elementary physical education. *Research Quarterly for Exercise and Sport,77*, 185-194. doi:10.1080/02701367.2006.10599353

Yin, R.K. (2014). *Case study research design and methods* (5th ed.). Thousand Oaks, California: Sage publications.

Zaravigka, K., & Pantazis, V. (2012). Equality of the genders in physical education: The students' perceptions. *Journal of Physical Education and Sport, 12*(3), 350-357.

Zeng, H.Z., Hipscher, M., & Leung, R.W. (2011). Attitudes of high school students toward physical education and their sport activity preferences. *Journal of Social Sciences, 7*(4), 529-537.

Zmundy, M.H., Curtner-Smith, M.D., & Steffen, J. (2009). Ecology and task structures in adventure education. Journal of Experiential Education, 31(3), 319-340.

Appendix A: Summary of Participants' Responses to Interview Questions

Interview question	Theme	*N*	Research question answered	Column D
1. What is your definition of cooperation?	Equality in voices	7	1	
	Listening to others	6		
	Being a good sport	4		
2. What does it look like to cooperate?	People helping others	10	1	
	Listening to others	9		
3. What does it sound like to cooperate?	Equality in voices	10	1	
	Positive comments	8		
4. What does it mean to you to cooperate?	Listen well	7	3	
	Help others	9		
	Sharing	6		
5. What do you like about cooperation?	Fun	8	1,3	
	Help others	7		
	Feel like part of a group	6		
	Equality within a group	4		
6. What do you dislike about cooperation?	Sometimes it takes too long to hear everyone's ideas	5	1,3	
	Someone taking over activity	3		
	When my ideas are not heard	2		
7. Do you feel like you are good at cooperating?	Yes	10	3	

8. What are the cooperative activities in physical education class this trimester?	Volleyball Speedball	8 2	1
9. Are there certain cooperative activities in PE class you like more than others?	Sport-based Small groups	6 4	1
10. Do you believe cooperative activities provide a good way for all students to equally participate in class? If so, why?			1,2
11. When you are participating in cooperative activities in PE class, how do you feel?	Supported Equal	7 3	3
12. Do you have a sense of belonging to a group when you are working cooperatively in PE class? If yes, what makes you feel this way?	Yes Sometimes Feel supported Equal chance to speak Team working toward a goal	8 2 5 4 1	1,3
13. Describe	Peers helping	6	2

the things you like about cooperative activities in PE class?	each other Get to work with others you wouldn't normally be with	4	
14. Describe the things you don't like about cooperative activities in PE class?	Too much talking by group members Sometimes a single person takes over the activity Letting people down	4 4 2	2
15. What is the focus of the cooperative activities presented to you?	Teamwork Communication Help others	7 2 1	2
16. Do you have big groups, small groups, or partners when participating in cooperative activities?	Mostly small Sometimes big	8 2	2
17. Does the group size impact how much you enjoy the activity?	Yes Small groups allow for more of a say You get to play a bigger role in small groups	10 6 4	2
18. How do you feel when your friends are in the group with you?	Like it Distracted	6 4	3
19. How do you feel when your friends are not	Focused Alone Less involved	4 3 3	3

in the group with you?			
20. Do you feel like you cooperate better with members of the same sex, opposite sex, or just as well with either?	Either sex Same sex	7 3	1
21. When playing does everyone cooperate?	Most of the time No	8 2	3
22. Do you feel like students help each other when they are working cooperatively in groups?	Yes	10	3
23. Is the class encouraged to help others? If so, how?	Yes, by teacher	10	3
24. Are you encouraged to come up with strategies when you're in a group?	Yes	10	3
25. Do people listen to your strategies?	Most of the time Not always	6 4	1
26. Can you tell me about a time when your PE group members did not listen to you?	Yes, felt bad No	5 5	1
27. Do you think students in PE class want to hear	Not in big groups Most of the time	4 6	2

everyone's strategies when you're in a group?			
28. Do you always get to participate equally during group games? If no, why not?	Most of the time	7	3
	Sometimes others take over	3	
29. Do you work cooperatively with other classmates when practicing new skills?	Yes	8	1
	Sometimes	2	
30. Do you work well with classmates that are assigned to you?	Yes	10	1,3
31. Do you work better with classmates that you get to pick to be with?	No	8	2
	Yes	2	
32. Should you always be allowed to choose the people you want to work cooperatively with?	No	10	2
33. What should cooperation look like in PE class?	People helping each other	9	2
	Everyone having an equal say/opportunity	7	
	Listening to others	8	
34. What should	Positive comments	5	2

cooperation sound like in	Listening to others	4	
PE class?	laughing	1	
35. What	Not sure	8	2
aspects of	Nothing	2	
cooperation could be improved upon in PE class?			
36. Is there	Nothing to add	7	1,2,3
anything you	I like	3	
would like to add?	cooperative activities		

Appendix B: Summary of the Teacher's Responses to Interview Questions

Question	Theme	*N*	Research question answered
1. How long have you been teaching PE?	15 years	1	N/A
2. Do you feel like a cooperative teaching methodology is useful when teaching PE units? If yes, why?	Yes. They learn well from each other and like to do so. Positive peer pressure in a cooperative environment helps students raise their efforts and focus more than a competitive environment, which can have a tendency to stress some kids out.	1	2
3. Do you feel like your students are good at cooperating with one another? If so, what makes you believe this?	Yes. They know they have to be and continue to get better at doing so.; they do a lot of cooperative work in their classes.	1	2
4. Do you see a difference in cooperation levels amongst	Girls working with other girls tend to be more cooperative	1	3

genders?	with one another than boys working with boys. The boys do work cooperatively well with one another but just need more time to get to a highly cooperative level but do get there.		
5. Do students cooperate equally well when working in mixed gender groups as they do when they are working in same-sex groups?	When boys and girls are working cooperatively together they can do really well. but at times, some of the girl appear to be a bit shy to "put themselves out there." When working together, girls tend to hold back and not speak up a lot, especially if the boy are screwing around.	1	3
6. Did you see any students participate more today than they	Yes	4	2

normally do, or less than they normally do?			
7. What do you think went well today in class?	High level of engagement. Positive support of less-skilled students. Students highly involved during debriefings	3 2 3	2
8. What do you think could have been improved upon?	Kids making more equal groups. More groups observing the ones who were playing.	3 2	3
9. Do you think the students participated well during today's activity? If no, why do you think that is? If yes, what makes you believe this?	Yes. Positive support towards others. All students actively involved	4 3 3	2
10. Do you think the students liked the activity? If not, why do you think that is?	Yes	4	2
11. Would you change the activity to help increase	No	4	2

participation?			
12. Was the activity presented in class today one that has been done before by the students?	No	3	2
	Yes-they warmed up with moonball and had played that one other time	1	
13. Would you perform the activity again? If not, why?	Yes	4	3
	There is a high amount of positive support.	4	
	The students are getting a lot of touches with the ball that they would not get in a traditional volleyball game.	4	
14. Do you think the activity helped to build the students' skills?	Yes	4	3
	The kids get so many touches on the ball with these activities.	3	
	The kids are getting great opportunities to work on communication through these activities.	3	
15. Do you think the students felt good about their skills after the activity? If not, why?	Yes.	4	3
	I could tell the less-skilled players felt good about some of their successes and the verbal	2	

	support they were receiving.		
16. Could you use the same activity to build other sport-related skills?	Yes	3	2
17. Do you think the students' attitudes were positive during the activity? If no, why not? If yes, why?	Yes	4	3
	The positive attitudes were mainly due to the kids having individual and group success.	2	
	The kids did not dwell on the mistakes they made or blame one another.	2	
18. Is there anything you would like to add about today's lesson or your students' attitudes toward the activity?	I love this kind of stuff, because it is what they need and are expected to do well in the classroom.	4	1,2,3
	There is both social and motor skill growth during these activities.	3	
	It appears the students like the lack of pressure, and I do too.	3	

Appendix C: Focus Group Guide

Interview Guide

Hi, I'll be asking you questions that focus on cooperative activities in physical education class. You do not have to any answer any question that you don't want to. If you need clarification on a question just ask me. At any point during the focus group you can leave and go back to recess. Everything you say in answering these questions is important, and there are no wrong or right answers. Everyone's opinion and perspective is important, so please listen and respect everyone's voice. Feel comfortable to answer negatively or positively about anything I ask. I will not be using your real name for this study. I will be using the name you have chosen. Finally, I will be recording so before you speak please say your name.

Background information

Name

Introduction

Tell me about yourself.
Do you like physical activities?
Do you like individual or team-oriented activities?
What is your favorite activity?
How often do you participate in physical activities outside of school?

Perceptions on cooperation

What is your definition of cooperation?
What does it look like to cooperate?
What does it sound like to cooperate?
What does it mean to you to cooperate?
What do you like about cooperation?
What do you dislike about cooperation?
Do you feel like you are good at cooperating?

Perception of cooperation in physical education class

What are the cooperative activities in your physical education class this trimester?

Are there certain cooperative activities in PE class you like more than others? If so, why?
Do you believe cooperative activities provide a good way for all students to equally participate in class? If so,why?
When you are participating in cooperative activities in physical education class, how do you feel?
Do you have a sense of belonging to a group when you are working cooperatively in physical education class? If yes, what makes you feel this way? If not, why not?
Describe the things you like about cooperative activities in physical education.
Describe the things you don't like about cooperative activities in physical education.
What is the focus of the cooperative activities presented to you?
Do you have big groups, small groups, or partners when participating in cooperative activities?
Does the group size impact how much you enjoy the activity?
How do you feel when your friends are in the group with you?
How do you feel when your friends are not in the group with you?
Do you feel like you cooperate better with members of the same sex, opposite sex, or just as well with either?
When playing does everyone cooperate?
Do you feel like students help each other when they are working cooperatively in groups?
Are you encouraged to help others? If so, how?
Is the class encouraged to help others? If so, how?
Are you encouraged to come up with strategies when you're in a group?
Do people listen to your strategies?

Can you tell me about a time when your PE group members did not listen to you?
Do you think students in PE class want to hear everyone's strategies?

Do you always get to participate equally during group games? If no, why not?
Do you work cooperatively with other classmates when practicing new skills?
Do you work well with the classmates that are assigned to you?
Do you work better with classmates that you get to pick to be with?
Should you always be allowed to choose the people you want to work cooperatively with? Why or why not?
What should cooperation look like in PE class?
What should cooperation sound like in PE class?
What aspects of cooperation could be improved upon in PE class?

Is there anything you would like to add? Or anything I did not ask?

Appendix D: Teacher Interview Guide

How long have you been teaching PE?
Do you feel like a cooperative teaching methodology is useful when teaching PE units? If yes, why?
Do you feel like your students are good at cooperating with one another? If so, what makes you believe this?
Do you see a difference in cooperation levels amongst genders?
Do students cooperate equally well when working in mixed gender groups as they do when they are working in same-sex groups?
Did you see any students participate more today than they normally do, or less than they normally do?
What do you think went well today in class?
What do you think could have been improved upon?
Do you think the students participated well during today's activity? If no, why do you think that is? If yes, what makes you believe this?
Do you think the students liked the activity? If not, why do you think that is?
Would you change the activity to help increase participation?
Was the activity presented in class today one that has been done before by the students?
Would you perform the activity again? If not, why?
Do you think the activity helped to build the students' skills?
Do you think the students felt good about their skills after the activity? If not, why?
Could you use the same activity to build other sport-related skills?
Do you think the students' attitudes were positive during the activity? If no, why not? If yes, why?
Is there anything you would like to add about today's lesson or your students' attitudes toward the activity?
Is there anything else you would like to add?

Appendix E: General Informed Consent for Administrators

Dear Administrator:

The study your school has been asked to participate in will examine how cooperative activities effect participation in physical education programs. The study will include the following procedures:

1. Four observations of a middle school physical education class and field notes describing the physical education classes.
2. Students will be asked to participate in a focus group. These focus groups will be formed with no more than four students. This will involve 14-16 students per class. The focus groups will last no more than 30 minutes and take place in a location of your choice that is convenient to the school and students. All focus groups will be digitally recorded.
3. The physical education teacher will be asked to participate in a formal interview. This formal interview will take place after each observed class and last no more than 30 minutes.

All observations, focus groups, and interviews will occur within a two-week period.

All information will be held confidential and the name of the school not identified.

Participants who consent to take part in this study can be withdrawn at anytime.

My signature indicates that I have read and understand the information contained in this document, and consent to my school participating pending approval of the Walden University Institutional Review Board.

If you have further questions pertaining to this study, please contact Damian Canny, researcher at 1-650-580-6903 or by email at damian.canny@waldenu.edu.

Appendix F: Assent Form for Research

Hello, my name is Damian Canny and I am doing a research project to learn about the attitudes and perceptions middle school students have toward cooperative activities in physical education class. I am inviting you to join my project. I am inviting all seventh graders in your PE class section at San Francisco Friends School to be in the study. I am going to read this form with you. I want you to learn about the project before you decide if you want to be in it.

WHO I AM:
I am a student at Walden University. I am working on my doctoral degree.

ABOUT THE PROJECT:
If you agree to be in this project, you will be asked to:

- Be observed during four of your regularly scheduled PE classes.
- Participate in one, 30 minute focus group with three other students during one of your lunch/recess times in the PE teacher's office.

What are the cooperative activities in your physical education class this trimester?
Are there certain cooperative activities in PE class you like more than others? If so, why?
Do you believe cooperative activities provide a good way for all students to equally participate in class. If so,why?
When you are participating in cooperative activities in physical education class, how do you feel?
Do you feel like you belong to a group when you are working cooperatively in physical education class? If yes, what makes you feel this way? If not, why not?
What is the focus of the cooperative activities presented to you?
Do you have big groups, small groups, or partners when participating in cooperative activities?

IT'S YOUR CHOICE:
You don't have to be in this project if you don't want to. If you decide now that you want to join the project, you can still change your mind later. If you want to stop, you can.

Being in this type of study involves some risk of the minor discomforts that your child might encounter in daily life, such as emotions and feelings you have when asked to answer questions about your experiences with your classmates; becoming upset, feeling shy or awkward, and having difficulty expressing your feelings could occur. Being in this study would not pose risk to your safety or wellbeing. But we are hoping this project

might help others by identifying the role cooperative activities can play in middle school PE classes like yours.

Payment:
There will be no payments to participate in this study.

PRIVACY:
Everything you tell me during this project will be kept private. That means that no one else will know your name or what answers you gave. The only time I have to tell someone is if I learn about something that could hurt you or someone else.

ASKING QUESTIONS:
You can ask me any questions you want now. If you think of a question later, you or your parents can reach me via phone at 650-580-6903 or via email atdamian.canny@waldenu.edu. If you or your parents would like to ask my university a question, you can call Dr. Leilani Endicott. Her phone number is 612-312-1210.

You should keep a copy of this form for your records.

Name of Child _____

Child Signature _____

Date _____

Age _____

Gender _____

Race _____

Researcher Signature _____

Appendix G: Parent Consent Form for Research

Your child is invited to take part in a research study of middle school students' perceptions and attitudes toward cooperative activities in physical education class. The researcher is inviting one section of seventh grade students at San Francisco Friends School to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to allow your child to take part.

This study is being conducted by a researcher named Damian Canny, who is a doctoral student at Walden University.

Background Information:
The purpose of this study is to gain an understanding of how middle school students perceive and feel about cooperative activities in physical education (PE) class. The researcher will observe four PE classes, facilitate four focus groups with students, and interview the PE teacher to gather the necessary data to determine the students' attitudes and perceptions.

Procedures:
If you agree to allow your child to be in this study, your child will be asked to:

- Participate in one 30-minute focus group during their lunch/recess time in the PE teacher's office.

- Be observed during four different PE classes.

Here are some sample questions:
What are the cooperative activities in your physical education class this trimester?
Are there certain cooperative activities in PE class you like more than others? If so, why?
Do you believe cooperative activities provide a good way for all students to equally participate in class. If so,why?
When you are participating in cooperative activities in physical education class, how do you feel?
Do you feel like you belong to a group when you are working cooperatively in physical education class? If yes, what makes you feel this way? If not, why not?
What is the focus of the cooperative activities presented to you?
Do you have big groups, small groups, or partners when participating in cooperative activities?
Does the group size impact how much you enjoy the activity?
How many students are in each group?
Do you get to pick the group?

How are the groups picked?
Are your friends in a group with you?
How do you feel when your friends are in the group with you?
How do you feel when your friends are not in the group with you?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you want your child to be in the study. Of course, your child's decision is also an important factor. After obtaining parent consent, the researcher will explain the study and let each child decide if they wish to volunteer. No one at San Francisco Friends School will treat you or your child differently if you or your child decides to not be in the study. If you decide to consent now, you or your child can still change your mind later. Any children who feel stressed during the study may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that your child might encounter in daily life, such as emotions and feelings you have when asked to answer questions about your experiences with your classmates; becoming upset, feeling shy or awkward, and having difficulty accurately expressing your feelings could occur. Being in this study would not pose risk to your child's safety or wellbeing. But we are hoping this project might help others by identifying the role cooperative activities can play in middle school PE classes like your child's'.

Payment:
There will be no payments to participate in this study.

Privacy:
Any information your child provides will be kept confidential. The researcher will not use your child's information for any purposes outside of this research project. Also, the researcher will not include your child's name or anything else that could identify your child in any reports of the study. The only time the researcher would need to share your child's name or information would be if the researcher learns about possible harm to your child or someone else. Data will be kept secure by storing it in a locked backpack when transporting it from the study site to the researcher's home, storing it in a locked safe at home, and placing data notes on a password protected computer. Only the researcher will have access to the digital recordings. The identity of the participants taking part in the study will remain confidential for all purposes of the study. The researcher will take steps to ensure confidentiality. The name of the participants will not be used, and all transcripts and collected data will use a name of your choice or a name chosen by the researcher, a pseudonym. The digital recordings will be transcribed and used in the dissertation. The researcher will destroy the recordings after he defends his dissertation. Data will be kept

for a period of at least 5 years, as required by the university. Data will be kept for a period of 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email at Damian.canny@waldenu.edu or by phone at 650-580-6903. If you want to talk privately about your child's rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University staff member who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number for this study is IRB will enter approval number here and it expires on IRB will enter expiration date.

The researcher will give you a copy of this form to keep.

Obtaining Your Consent

If you feel you understand the study well enough to make a decision about it, please indicate your consent by signing below

Printed Name of Parent	_____
Printed Name of Child	_____
Date of consent	_____
Parent's Signature	_____
Researcher's Signature	_____

Appendix H: Adult Consent Form

You are invited to take part in a research study about middle school students perceptions and attitudes toward cooperative activities in physical education class. The researcher is inviting the physical education teacher at San Francisco Friends School and his seventh grade students to be in the study. I obtained your name/contact info via the San Francisco Friends School website. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Damian Canny, who is a doctoral student at Walden University.

Background Information:
The purpose of this study is to understand how middle school students perceive and feel about participating in cooperative activities during physical education class.

Procedures:
If you agree to be in this study, you will be asked to:

- Be observed teaching four physical education classes.
- Participate in four 30-minute interviews after each class observation.

Here are some sample questions:

How long have you been teaching PE?
Do you feel like a cooperative teaching methodolgy is useful when teaching PE units?
Do you feel like other teaching methodologies are also useful when teaching PE units? If so, what are they?
Do you feel like one teaching methodology is better-suited for the majority of students in PE class? If so, what is it?
Do you feel like your students are good at cooperating with one another? If so, what makes you believe this?
Do you see a difference in cooperation levels amongst genders?
Do students cooperate equally well when working in mixed gender groups as they do when they are working in same-sex groups?
Do you feel like participation levels vary depending on what is being taught in PE class?
Do you feel like the students participated well today?
Do you feel like the kids had fun today?
Was today your first time teaching the activity you presented?
What do you think went well today in class?
What do you think could have been improved upon?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at San Francisco Friends School will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as the possible stress you might feel from being observed and interviewed. Being in this study would not pose risk to your safety or wellbeing. Possible benefits associated with this study include an insight into how students feel in regard to cooperative activities in physical education class. The risks involved in participating in the study are the same risks when teaching in a regular physical education class. The participant may withdraw at anytime, and if that does occur, the participant may resume their regular school day activities.

Payment:
There will be no payments to participate in this study.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by storing it in a locked backpack when transporting it from the study site to the researcher's home, storing it in a locked safe at home, and placing data notes on a password protected computer. Only the researcher will have access to the interview notes. The identity of the participants taking part in the study will remain confidential for all purposes of the study. The researcher will take steps to ensure confidentiality. The name of the participants will not be used, and all transcripts and collected data will use a name of your choice or a name chosen by the researcher, a pseudonym. The digital recordings will be transcribed and used in the dissertation. The researcher will destroy the recordings after he defends his dissertation. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email at Damian.canny@waldenu.edu or by phone at 650-580-6903. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number for this study is IRB will enter approval number here and it expires on IRB will enter expiration date.

The researcher will give you a copy of this form to keep.

Obtaining Your Consent:

If you feel you understand the study well enough to make a decision about it, please indicate your consent by signing below:

Printed Name of Participant _____

Date of consent _____

Participant's Signature _____

Researcher's Signature _____