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Children's Perceptions of a District-Wide Physical Education Program

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CHILDREN’S PERCEPTIONS OF A DISTRICT-WIDE
PHYSICAL EDUCATION PROGRAM

by

Tirza Ramona Davis

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

Department of Exercise Sciences
Brigham Young University
August 2009
This thesis has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

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ABSTRACT

CHILDREN’S PERCEPTIONS OF A DISTRICT-WIDE PHYSICAL EDUCATION PROGRAM

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Master of Science

It is important that physical educators, teacher educators, and researchers do all they can to understand and help promote positive attitudes among students, as attitudes toward physical education (PE) may influence students' physical activity intentions and behaviors. The purpose of this study was to identify children’s perceptions of PE as it is delivered via a district-wide PE program. Specifically, the study examined the following: (a) student perceptions of enjoyment and usefulness of the PE program as it is systematically delivered in their district, (b) student likes and dislikes with respect to PE, and (c) student voice as expressed directly by the students. The study used a previously validated attitude questionnaire ($N = 277$) with fifth and sixth grade students (ages 10-13) and follow-up focus-group and individual interviews ($n = 24$) to identify student perceptions of PE. Results identified three main categories: (a) teacher engagement, (b) student engagement, and (c) the impact of PE on students. Findings show students in this study had positive attitudes toward PE. This was due to curriculum and teachers, both
perceived as enjoyable and useful. The quality of the PE these students received was possible through the components of the district-wide PE program.
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# Table of Contents

List of Tables .................................................................................................................. ix

Children’s Perceptions of a District-Wide Physical Education Program

Abstract ............................................................................................................................. 2

Introduction ..................................................................................................................... 3

Methods ........................................................................................................................... 9

Results ............................................................................................................................. 15

Discussion ....................................................................................................................... 25

Conclusion ...................................................................................................................... 31

References ...................................................................................................................... 33

Appendix A Prospectus .................................................................................................... 42

Introduction .................................................................................................................... 43

Review of Literature ....................................................................................................... 51

Methods .......................................................................................................................... 66

References ...................................................................................................................... 73

Appendix A-1a Consent Form ........................................................................................ 79

Appendix A-1b Questionnaire ....................................................................................... 85
List of Tables

Tables

1. Survey Questions ..........................................................38
2. Sample Interview Questions ...........................................39
3. Survey Means and Standards Deviations by School ..........40
4. Students’ Perceptions of Physical Education ...................41
CHILDREN'S PERCEPTIONS OF A DISTRICT-WIDE
PHYSICAL EDUCATION PROGRAM

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Children’s Perceptions of SSPE

Abstract

It is important that physical educators, teacher educators, and researchers do all they can to understand and help promote positive attitudes among students, as attitudes toward physical education (PE) may influence students' physical activity intentions and behaviors. The purpose of this study was to identify children’s perceptions of PE as it is delivered via a district-wide PE program. Specifically, the study examined the following: (a) student perceptions of enjoyment and usefulness of the PE program as it is systematically delivered in their district, (b) student likes and dislikes with respect to PE, and (c) student voice as expressed directly by the students. The study used a previously validated attitude questionnaire ($N = 277$) with fifth and sixth grade students (ages 10-13) and follow-up focus-group and individual interviews ($n = 24$) to identify student perceptions of PE. Results identified three main categories: (a) teacher engagement, (b) student engagement, and (c) the impact of PE on students. Findings show students in this study had positive attitudes toward PE. This was due to curriculum and teachers, both perceived as enjoyable and useful. The quality of the PE these students received was possible through the components of the district-wide PE program.
Reason would suggest that with students as the ultimate consumers of education, their perceptions could yield valuable insights and information about the education they are receiving. In reality, however, they are rarely consulted when decisions are being made or curricula are being evaluated (Dyson, 1995). According to Erickson and Schultz (1992) and Storz (2008) students’ views of all areas of education are generally underexplored or even ignored; often based on the unfounded assumption that teachers already “know and understand the needs and interests, attitudes and values of their students” (Graham, 1995b, p. 365). Researchers further point out that educational practices have long been conducted with only adults perspectives and ideals in mind, even though children are the end recipients of curricular and instructional policies (Erikson & Schultz, 1992).

Like the whole of education, students' perceptions of physical education (PE) have also been neglected while administrators continue to provide students with what they think is best. Despite the rarity of purposively accessing student voice, researchers recommend student voice as a valuable source of information to teachers and administrators (Erikson & Schultz, 1992; Graham, 1995a). For example, Brooker and MacDonald (1999) suggest greater understanding of the connection between PE outcomes and outside-of-school activity patterns could be gained when educators seek student input. They further suggest that student input on which activities are of greatest value to them, may guide curricular changes that could positively influence children’s outside-of-class activity behaviors. Considering current lifestyle trends of decreased
physical activity (PA) rates and increased obesity, Le Masurier and Corbin (2006) highlight the central role PE can and should play in shaping childhood perceptions.

Others (e.g., Fox, 1991; Graham, 2008) have also highlighted the importance of helping students value PE in the present, with the hope of influencing later motivation toward and participation in PA. While longitudinal studies are difficult to conduct, limited available research suggests positive early PE experiences do indeed positively influence adults' voluntary PA patterns (Trudeau, Laurencelle, Trembly, Rajic, & Shephard, 1999).

Silverman (2005) explained the importance of attitudes in light of their effect on PA behaviors. Also, Silverman described the way both teacher and curriculum can influence a student’s perceptions of PE and affect the student's attitudes. Silverman believes that if teachers help promote positive attitudes toward PE, students will enjoy PA more and hopefully continue to enjoy PA over a lifetime. Steinhardt (1992) further points out that perceptions and attitudes are usually formed early in life and may influence both attitudes and participation patterns throughout a child’s life. A better understanding of students’ attitudes and beliefs about PE could greatly influence teacher effectiveness and the design of programs to address the needs of their students (Fox, 1991; Steinhardt, 1992).

Various means, such as simple surveys, have been used to reveal that some elementary school students do have positive perceptions of PE (Graham, 2008; Solmon & Carter, 1995). However, findings are inconsistent and researchers suggest using questionnaires alone may limit findings to potentially biased perceptions and leave valuable insights unexamined (Gerdes & Conn, 2001; Hohepa, Schofield, & Kolt, 2006).
Additionally, Erikson and Schultz (1992) point out that while surveys may uncover broad patterns, they offer relatively little substance. Thus, qualitative methods are increasingly employed to gain greater depth of understanding into student perceptions and processes. Despite the difficulties that may arise while collecting and generalizing the data through such qualitative methods, the data often provide a rich picture of student perceptions in ways that simple surveys cannot (Silverman & Subramaniam, 1999).

For example, a study by Solmon and Carter (1995) examined student perceptions of PE through interviews, observations, and drawings. The researchers found most children perceived PE positively and could define PE as exercise and learning fitness and health concepts. However, the data also indicated PE meant following rules, waiting turn, and standing in line to many of the students. Other studies on student perceptions of PE found children often perceive barriers to participation in PE, such as lack of meaning and variety (Gibbons & Humbert, 2008), limited opportunities during school hours, and limited choices during PE classes (Hohepa et al., 2006).

Such studies point out the varying quality found in PE programs and how mere participation in a PE program does not guarantee a child will be physically active outside of or even during class. To make the greatest difference, students must be exposed to quality PE. Marsden and Weston (2007) warn against equating “sport” with “physical education” and recommend that quality PE, especially for younger children, focus on students’ physical literacy, developmental movement, and enjoyment and participation. Enjoyment is also an aspect Siedentop & Locke (1997) suggest as key for quality PE. The authors describe a process in which quality PE programs engage most students
6 Children’s Perceptions of SSPE

enthusiastically in learning, which helps children to value PA, and finally adopt physically active lifestyles. This also reflects the standards of the National Association of Sport and Physical Education (NASPE, 2004) which has multiple references to help children enjoy PA over a lifetime. Despite these nationally articulated ideals and standards, establishing widespread quality PE has proven to be a nearly insurmountable task. Prusak, Graser, Pennington, Beighle and Morgan (in-press), argue that in the absence of systematically employed accountability measures, successful programs will remain rare and isolated.

While large scale accountability initiatives such as that of the Saber-Tooth Reform Project, which approached curriculum reform with accountability measures on a larger scale (Ward, Doutis, & Evans, 1999), the vast majority of physical educators are accountable to only themselves. Many teachers strive to offer excellent PE, but the profession is also plagued by teachers content to “roll out the ball” (Cawley, Meyerhoefer, & Newhouse, 2006).

Those teachers who try their best to influence and inspire children through PE find they face daunting barriers to success. Prusak et al. (in-press) listed these as “lack of administration and collegial support, lack of equipment, poor facilities, large class sizes, poor scheduling, philosophical and curricular differences, marginalization of subject matter, isolation, and lack of opportunities for professional development” (p. 4). In addition, Arnold (1999) found teachers believed quality PE programs were difficult to actualize due to negative perceptions of decision makers, lack of instruction time, inadequate facilities and staffing, and deficiencies in teacher preparation programs.
Finding a PE program free of barriers is indeed a challenging undertaking. Many studies document what does not work in PE (Graham, 1995a; Rink, 1992), while only a few highlight what does work in successful programs. Siedentop and Locke (1997) recommend studying systemic success when it is found. In addition, Graham (1995a) points out,

If researchers can identify programs that have a positive impact on students, it would be helpful to understand, for example, why the impact is positive, what these positive programs look like, and perhaps most importantly how the teachers were able to create and sustain their positive programs in a time of budgetary constraint when school boards and administrators are being forced to cut “frills” such as art, music, and PE. (p. 481)

Recently, Prusak et al. (in-press) examined a district-wide PE program which they believe meets the definition of large-scale success. The program, which they refer to as Systematic Success in Physical Education (SSPE) serves more than 44,000 children yearly and is implemented by a team of qualified specialists, key administrators, and university professionals. A dynamic system of accountability drives the success of the program and is the overarching force in four key components the authors believe are vital to sustaining the program’s culture: a) a mandated district-wide curriculum, b) a district coordinator, c) a university partnership, and d) ongoing professional development.

First, a common curriculum provides familiarity while still allowing personal creativity. The curriculum is founded on principles of student-centered learning and combined with common, research-based methodologies which further contribute to
8 Children’s Perceptions of SSPE

successful teaching practices. The mandated curriculum also helps maintain accountability across the district. Second, a district coordinator helps to remove barriers teachers commonly face, such as lack of equipment or large class sizes. The district coordinator also conducts frequent evaluations, which not only aid in accountability, but also help identify weaknesses and influence decisions on in-service topics. Third, there is a strong partnership between the local university and the school district, which leads to better teacher preparation and a seamless transition from the books to the real world. The close connection also allows the university to share current research with the teachers. Furthermore, frequent, ongoing professional development promotes growth and excellence among teachers. Finally, in-services provide teachers with an opportunity to network and provide mutual support (Prusak et al., in-press).

A major advantage of the SSPE program is that, as mentioned above, many barriers have been removed and thus teachers can focus on doing what they do best: teach. This may directly translate into increased student outcomes, such as more PA time. Indeed, Morgan, Beighle, and Pangrazi (2007) revealed that children in the SSPE program were engaged in PA at least 50 percent of class time, another key indicator of the program’s effectiveness. The Morgan et al. study also indicates that the PE program in the SSPE study also increases children’s leisure PA rates.

While teacher qualifications and support and student outcomes are important indications of the success of this program, they offer only a partial picture. Student perceptions on the enjoyment and meaning of the program remain unclear in determining the true impact of the program.
Therefore, the purpose of this study was to identify children’s perceptions of PE as it is delivered via the SSPE program in their school district. The study examined the following: (a) student perceptions of enjoyment and usefulness of the PE program as it is systematically delivered in this district, (b) student likes and dislikes with respect to PE, and (c) student voice as expressed directly by the students.

Methods

Participants and Setting

Seven hundred and fifty fifth and sixth grade students, at four of fifty-seven public elementary schools located in a large district serving more than 44,000 children in a western state in the United States, were invited to participate in this study. A representative sampling of four schools, including low to high socioeconomic status (SES), various ethnic groups, and school sizes was selected (School 1: high SES, predominantly Caucasian, large school; School 2: mid to upper SES, predominantly Caucasian, medium sized school; School 3: low SES, predominantly Hispanic, large school; School 4: low to mid SES, predominantly Caucasian and Hispanic, small school). Of those invited to participate, 299 returned a signed informed consent/assent form enabling them to participate in the study. A final population $N = 277$ (males $n = 118$; females $n = 159$) was utilized for further analysis.

Procedures

All procedures and methods for this study were approved by the University Institutional Review Board, school district, and school principals. Seven weeks prior to data collection, a researcher visited each fifth and sixth grade classroom at the
participating schools, briefly explained the purpose of the study, and distributed informed consent forms to be taken home and signed. Students were also informed of the basic procedures of the study, consisting of a 20-item questionnaire and possible selection for follow-up interviews. In addition, the students were told that participation was voluntary and that all participants would receive a sports waterbottle and have their name entered in a drawing for a chance to win a playground ball. The researcher also gave a manila envelope to each teacher with instructions for subsequent consent form collection.

Over the next week, classroom teachers reminded students to return their consent forms if they wanted to participate. At the end of the week, all returned consent forms were collected by a school secretary, who then mailed the forms to the principle investigator. Three hundred twenty-five forms were returned (43%), however, twenty-six students indicated they did not want to participate. A master list of all students eligible ($N = 299$, absentee rate lowered participation: $N = 277$) to participate was compiled. Five weeks prior to data collection arrangements were made to administer the survey during PE. A time for follow-up interviews was also arranged.

Four weeks prior to data collection, interview protocol and questions as well as survey administration procedures were pilot tested for suitability for public school fifth and sixth grade students. An elementary school in a western state in the United States, outside of the district under examination, was used to pilot interview procedures. Twelve fifth and sixth grade students (six boys, six girls) were selected to participate in the interview. On the first day, six of the students met in a conference room and participated in a focus group interview. The students were briefly instructed that they would be
helping to test the procedures for a study outside of their district. The interview protocol was then followed as it had been prepared. Two of these students remained after the focus group interview and were individually interviewed. The following week these procedures were repeated with the remaining six students. After piloting the interview procedures, the following was added to the interview procedures script: “Remember to be respectful of your classmates as they share their opinions. You don't need to raise your hand before talking, but try not to talk over each other.” Also during this week, six boys, ages 10-15 volunteered to pilot the survey administration. Survey procedures were piloted to assess the most appropriate method of data collection. Half of the children in the pilot study answered the survey on a Scantron form, and half of the children on an answer sheet. Administration of the survey took approximately 20 minutes. It was determined that using the Scantron forms for answers kept students more focused on the task while answering the questions.

On the day of survey administration, participants were sent from their PE class to another room to take the survey. Students were instructed to answer honestly and informed that all answers would be kept confidential. Each survey question was then displayed on an overhead projector and read aloud by the researcher. Students were allowed to ask for clarification as needed. The primary researcher administered all surveys, with the exception of the surveys at one of the four schools. At the remaining school, a teacher trained in the procedures administered the surveys. Completed surveys were secured in the principal’s office until collected by the primary researcher.
Data Sources

Attitude toward PE survey. Student perceptions of (a) enjoyment and (b) usefulness of PE were assessed by the 20-item, six sub-scale survey previously validated for use with this population (Subramaniam & Silverman, 2000; see Table 1). As requested by the district, the survey was modified and the word “activities” replaced the word “games” throughout the survey to more accurately describe the district's PE program. Additional district requirements necessitated collapsing the five-point Likert scale to a three-point scale (1=Disagree, 2=Neutral, 3=Agree). The six sub-scales were (a) overall enjoyment; (b) enjoyment based on activities; (c) enjoyment based on the teacher; (d) overall usefulness; (e) usefulness based on activities; and (f) usefulness based on the teacher. Each sub-scale was scored by averaging its associated items.

Follow-up focus-group interviews. An initial analysis of the survey data placed students in quartiles, with cut-off points derived from the overall enjoyment sub-scale. Six students, three from the highest quartile and three from the lowest quartile, were chosen from each school for follow-up interviews \( n = 24 \); males \( n = 12 \); females \( n = 12 \). Four alternates were also chosen from each school in case of absenteeism. With the exception of one student, only those students who had attended school in the district for at least three years were chosen to participate. This exception was necessary to field a participant fitting the purposeful selection criteria (lowest quartile, female). The interviews took place during regular school hours in a school conference room or an empty classroom. Two researchers, one male and one female, conducted each interview. One of the researchers acted as the main interviewer and moderated group discussion.
Follow-up questions stemming from the attitude questionnaire, designed to further access student perceptions of PE, were used (see Table 2). The second interviewer took notes and asked additional questions as needed. Each interview was audio-recorded and took no more than 30 minutes.

*Follow-up individual interviews.* To be certain students felt free to express their individual points of view, each was interviewed alone following the group interview \((n = 24)\). These interviews used similar questions to the focus-group prompts and additional questions based on the students’ responses during the focus group interview. Each interview was audio-recorded and took approximately five minutes.

*Field notes.* Throughout the study, field notes were collected on students’ verbal and nonverbal language during interviews and PE classes. In addition, notes were taken as the primary researcher observed teaching methods, environment, and student behavior in a sampling of (K-6) PE classes at the participating schools. Notes were also recorded as researchers conversed on emerging themes in the interviews.

*Data Analysis*

Survey data were inspected and descriptive statistics were analyzed including frequencies, means, and standard deviations. Scores for all six sub-scales, (a) overall enjoyment (questions 1, 2, 3, 5, 9, 11, 12, 15, 19, 20); (b) enjoyment based on activities (questions 1, 2, 3, 5, 20); (c) enjoyment based on the teacher (questions 9, 11, 12, 15, 19); (d) overall usefulness (questions 4, 6, 7, 8, 10, 13, 14, 16, 17, 18); (e) usefulness based on activities (questions 6, 7, 10, 13, 14); and (f) usefulness based on the teacher (questions 4, 8, 16, 17, 18) were calculated by averaging respective scale items (see Table 1). Data
were also analyzed for within-group and between-group differences and post-hoc analysis was performed where needed.

Data from the interviews were transcribed and then analyzed using the constant comparative method (Lincoln & Guba, 1985). This method involves examining raw data from the questionnaires, interview transcripts, and field notes and categorizing the data into units of information. As data were categorized, they were compared to each other and closely analyzed for emerging themes. Group discussions between collaborating researchers also aided analysis and helped guide the extrapolation and refinement of themes.

Establishing Trustworthiness

**Triangulation.** There are four distinct forms of data triangulation (Denzin & Lincoln, 2000). This study employed data triangulation by asking similar questions of participants, first in the questionnaires and later in the focus groups and individual interviews. In addition, the study used several different researchers, which is known as investigator triangulation. The use of triangulation helped establish the validity of the data (Denzin & Lincoln, 2000).

**Researcher bias statement.** The researcher received a bachelor’s degree in child development and has always been intrigued with learning more about children’s thinking processes and perceptions. While the researcher has no affiliation to the district or university in the Prusak et al. (in-press) study, she has read the Prusak et al. study a number of times and was impressed by the model of success proposed in the study.
Peer debriefer. To assure researcher biases were avoided, one researcher assumed the role of peer debriefer, or devil’s advocate, and challenged the validity of emerging themes and ideas (Gerdes & Conn, 2001). The primary researcher and peer debriefer met regularly throughout the study until data analysis was complete.

Results

Participants \((N = 277; \text{males } n = 118; \text{females } n = 159)\) consisted of fifth grade students \(n = 166\); sixth grade students \(n = 111\); Caucasian \(n = 129\); Hispanic \(n = 99\); African American \(n = 8\); Asian \(n = 6\); and Other \(n = 26\). School means and standard deviations for each sub-scale were obtained and are displayed in Table 3. A one-way ANOVA revealed a significance between school differences on overall enjoyment by school \([F(3,266) = 5.627, p \leq 0.001]\). A Tukey Post Hoc test showed students at School 2 enjoyed PE less than at Schools 1 and 4 \((p \leq 0.01, \text{and } p \leq 0.001, \text{respectively})\).

Qualitative data derived from transcriptions of follow-up interviews with selected students \((n = 24)\) and consisted of 705 comments. Field notes added an additional 61 comments to the total data set. Each data point ranged from a one-word reply to an extended paragraph. Three main categories were identified: (a) teacher engagement, (b) student engagement, and (c) the impact of PE on students. Each higher-order category has three to four themes representative of the data. The number of comments in each category and theme are displayed in Table 4. The following section provides data in support of the main categories and their supporting themes.
Teacher Engagement

Teacher engagement is supported by the following three themes: (a) well-managed classes, (b) encouraging behavior, and (c) personal interaction.

**Well-managed classes.** The first theme in support of teacher engagement is characterized by a common management style observed at all four schools. Such observations revealed a common language, common environment, common discipline plan, and engaging teacher behavior. At each school, teachers were heard saying phrases such as “Wait until I say go,” “Think about your spacing,” “Control your body,” or “Move on!” to which the kids would shout, “Let's go!” when transitioning from one activity to another. In addition, teachers at each school used timed music to help students change stations or activities. Other environmental elements evident at each school included equipment for everyone, activity signs, and PE-related posters. Each lesson plan consisted of four parts, including (a) an introductory activity, (b) a fitness routine, (c) skill practice, and (d) a game. Students were familiar with the organization of the lessons and it seemed to help teachers keep the class running smoothly.

Furthermore, teachers at each school employ a common discipline plan. In general, students felt their teacher treated students fairly, which helped them enjoy PE. Out of 95 comments in this theme, 63 (66%) were positive. For example, one student commented how it was fair, “Like, they don’t change the rules” (student 7). Another student described the discipline plan and pointed out the kindness of the teacher, “The teacher is nice and if some of us are in trouble, and he tells us: 'Come here and go to timeout' and he gives us like a warning” (student 8). Despite that the majority of the
student comments were positive with respect to how teachers disciplined their classes, one negative idea surfaced. Occasionally students were dissatisfied when the class was punished for the misbehavior of an individual student. One student expressed how it’s unfair “When there’s one person fooling around and the rest of the class gets punished” (student 16). Not only did students feel this was unfair, but they also dreaded the time it took away from being active. One boy explained, “...You're not doing anything, but you miss out on the games because one to two people are being bad” (student 14). Yet overall, students seemed to appreciate the efforts of teachers who took the time to present activities in a fair and fun way.

*Encouraging behavior:* There were 39 comments associated with teacher behaviors which provide encouragement to students during PE. For example, students pointed out the teachers' role in helping them improve their skills. One child said, “Well, he helps me improve on them [skills], like with volleyball” (student 10). Other students pointed out how the teacher would often inspire the class to be better or try harder, “He tells us to—don’t give up on yourself” (student 9). A third student reported,

Oh yeah, he goes around, like whenever we’re doing that circle thing with the different activities, he goes around and he says, 'Good job' or 'try harder' or 'get to work.' So whenever you lay down to do crunches, sometimes you just lay there and he says, 'Come on, let’s go. You’re going to move on to the next one.' So you start working and he’s really nice about it. So he’s like 'Oh, good job' or 'try harder' (student 2).
Similar comments were made by students interviewed at each of the four schools. Additionally, the researcher observed teachers moving around throughout lessons to offer words of encouragement to students.

*Personal interaction.* Immediately apparent to the researcher at the beginning of observation was the significant level of student-teacher interaction in each lesson. Teachers were observed moving from student to student throughout lessons and often using students' names when giving encouragement or instruction. There were 28 comments from students in relation to this theme, and an additional nine points from the field notes supporting this theme. Students liked the fact their teachers knew them by name; it made them feel “kind of special” (student 7), or “kind of cool” (student 4). Students also spoke of the value they placed on teachers knowing their names. For example, one student expressed: “When he’s across the room he can say your name instead of like, 'Hey, you, come here.' So it helps us to know who he’s talking to. There are 27 other 'hey yous' in the class” (student 3). Another student explained how he could ask his PE teacher where his brother was, since the teacher also knew who all the siblings in the school were. Teachers are of course not perfect, and sometimes don't remember every student. One student said, “Yeah, he tries his best, but sometimes he mixes up the names on accident and then he’s like, 'Oh, sorry’” (student 5). However, teachers were observed trying to relate to students and students did voice they felt like teachers cared and looked after them. One student pointed out,

He makes me feel like I can just, well I don’t know how to explain it, like really trust him because sometimes I don’t feel like doing something. Like, sometimes I
don’t want to do something when it looks really boring. Then my teacher makes it really fun sometimes (student 6).

Student Engagement

This category has five themes, (a) PE is fun, (b) socializing is fun, (c) students enjoy learning a variety of new activities, (d) assessment, and (e) PE is a break from the classroom.

Physical education is fun. The first theme defines students' general feelings for physical education. Students clearly vocalized their likes and dislikes of PE. In general, students enjoyed PE and perceived it as a fun time. When asked what was the most valuable part of PE for them, many students would excitedly reply, “It's fun!” Students also pointed out that PE wasn't just about being active, but that activities and teachers helped to make it fun. One girl said, “…it’s not only something that she would want us to do to help us in PE, but it’s something that we would like to do” (student 23). The least enjoyed element of PE was the fitness segment of the lesson. Fitness repeatedly came to the surface as “the most boring” or the least useful part of PE. For example, one boy explained how he did not like the fitness activity, “Like walking around, running in circles. I just want to get to the point” (student 3). Another boy expressed, “You do [one fitness station] for five minutes and then you go to the next one. But most kids, they just sit down and don’t do anything. They’re just so sick of stations” (student 15).

Socializing is fun. Another reason identified as why students enjoy physical education is because of its social nature. This theme is characterized by students who enjoy physical education because they get to be with friends or get to know other
Children’s Perceptions of SSPE

classmates better. Out of 49 comments in this theme, 42 were positive and seven were negative. Choosing different partners rather than always one's friends was clearly encouraged in PE and the students didn't seem to mind. One girl explained, “Well, we're supposed to get with the closest person. So sometimes it's my friend, sometimes it isn't” (student 18). Another student described, “So [if] people… hate each other, the teacher puts them together to try to get along with each other. And usually at the end of the day they turn out being friends saying 'oh, sorry,' and all that” (student 2). Another student also pointed out how PE was like a springboard for making new friends,

You get to know more people and so you’re not too shy around them. And what if you have friends and then they start being mean to you and then you have no one to play with? Then if you get to know people, then everyone is your friend (student 21).

Yet not everyone liked working with different partners. One girl explained, “With some of them it bothers me [to work with other students], but with some of them they’re my friends” (student 5).

Students enjoy learning a variety of new activities. This theme describes how students enjoyed physical education because of the variety of activities offered and the chance to learn new sports, games, or as one student put it, “It's fun and they teach us new – more stuff about life” (student 7). This student went on to describe some of the new activities he had learned in PE. Students explained how they got to try new activities such as different stretches, Frisbee golf, and rock-climbing in their classes. One student
pointed out, “You get to know sports that you've never even heard of” (student 13). In contrast, students did not like having to repeat activities. One boy said,

Sometimes [PE], it’s not fun. Sometimes on the bad days it makes me not want to do PE anymore because he doesn’t even let us do stuff that’s fun anymore. He usually is just making us do push-ups and run around everywhere and do things over (student 19).

When students were asked if they would change anything about PE, some students did offer suggestions, such as adding new activities like skating, golf, or lacrosse to the repertoire of activities offered, or “Making the basketball hoops higher” (student 7). There were also a number of students who suggested lengthening the time of PE, mostly so there would be more time to participate in the activities.

Assessment. This theme relates to students' perceptions of assessment in their PE program. A number of students explained they were sometimes required to write the activities they had done for the week. For example, one student said, “Like if you exercise, like we have the thing where it has the whole week and we choose exercising. It has to be at least five exercises for a day and we have to put the time” (student 5). Other students described having taken the PACER test, but could not explain the purpose of the test, nor remember doing it very often. Some students even declared they never take tests in PE class. One student didn't think PE had a cognitive component at all. He said, “Reading, you read to read fast or better. Math, you do that to make your mind get bigger – grow. But with PE, you’re learning like how to run” (student 24). Another group of
students described how they were only graded on participation and effort in PE and they
never had to take pencil and paper tests.

*Physical education is a break from the classroom.* The final theme to emerge
regards to students perceptions of PE as an opportunity to release their energy and clear
their minds. One boy stated, “I like getting away from class and running around” (student
1). Another boy stated he liked PE, “Because it makes your mind more alert, so then it’ll
be easier for you to memorize things” (student 8). Another student declared she looked
forward to PE since, “You get to get moving and get out your energy so you don't bug
your teacher the rest of the day” (student 17).

**Impact of Physical Education on Students**

A total of 248 comments support this category and is defined by the following
three themes: (a) students' knowledge of health concepts (b) influence on students'
present behaviors, and (c) influence on students' future behaviors.

*Students' knowledge of health concepts.* It appeared that part of the curriculum
focused on teaching students health concepts. Signs in each gym reminded students to be
fit, or provided suggested activities for upper body strength, cardiovascular endurance,
and flexibility. Some teachers had students checking their pulse throughout the lesson.
Student comments revealed that sometimes they understood what the teachers meant and
other times they did not. In addition, some students commented on health concepts, but
when further questioned, revealed they had learned about these things in class or at home.
Yet, other students were learning about the health benefits of participating in PA in PE
class. For example, one girl shared how important it was to her to move around everyday,
“Because if you just sit all the time, then you get really fat and heavy and you can get heart problems” (student 17). This student then explained how her teacher discussed different activities the students could participate in to exercise their hearts. Another girl described her PE teacher's explanation of balancing caloric intake and expenditure. She said, “He said that we need to balance out how much energy we gain and how much energy we use. Otherwise, we’ll get too skinny or too fat” (student 10). A few students, however, when asked what about PE was valuable to them, wondered if they were even learning anything in PE. One boy asked, “Well, with physical education what are we really learning?” (student 24). To other students, they understood the health benefits of PE merely as a way to keep from being lazy. One student shared, “When the teacher will have you do exercising I think they might be doing that to help us with like, how to not be moping around all the time and kind of sitting on the couch and just like being lazy” (student 20).

Influence on students' present behaviors. This theme characterized the influence PE had on students' PA behaviors outside of class. Many students indicated they enjoyed doing the activities they learned in class during recess or after school. For some, PE allowed them to practice already possessed skills which they often continued to practice outside of class. For others, PE was an opportunity to learn something new so they could participate in groups outside of class. For example, one boy explained,

I never used to get baseball or kickball…I was like, “what?” The triangles that you try to get the ball out, that other people were trying to get [you out on] and I
never used to know. But then we played it here, baseball, …my cousins used to play…I’d never play…I was the only one left out, and now I play (student 19).

Another student said that what she learned in PE helped her be more active, “Because if it's really fun, like tennis, you want to do tennis at home and stuff. And so one day I went into PE and we did tennis and I came home and played tennis with my friends” (student 23). One student said the most important thing about PE to him was, “Just getting healthy and doing it at home, so people who don't exercise a lot, they can do it and inspire some to do it home and stuff with their family” (student 18). Similarly, a boy expressed that he thought PE was important because,

Some of the kids at recess don't do anything so I think without PE, kids would be a lot more heavier. I mean, it's kind of forced. Not really forced, but kind of inspired, so most kids at recess and at home don't really do anything. So PE is the only time they have some activity (student 13).

On the other hand, one student pointed out that his teacher did not encourage outside activity, “[They don't say.] 'You could do this at home.' They just say 'do it.' So they're basically just taking that half hour. So they're not telling us to take it home, try it, see how you do. You just try to get through it really quickly” (student 14).

_Influence on students' future behaviors._ This theme involves students' comments on their plans to be or not be physically active in the future. Out of 12 students asked, nine stated they plan on staying active. Three students were unsure if they would. For example, one student said, “Probably, depending on whether it’s kind of like if I’m getting into sports and stuff and then if I keep going on and on as I get older. So I guess if
I can do what I’m doing now, I’d probably be doing it still when I’m 20 or 30” (student 23). Another student pointed out the health benefits as why PE was important to her and why she planned on staying active. She said, “I think it’s important because – because if I’m not healthy, I could have diabetes or cancer and stuff and I don’t want that. I just want to be healthy because it’s my life” (student 11). Another student pointed out that PE could be a good starting point for a lifetime of PA. She said,

It’s important to exercise at home, not only at school, because PE at school is not going to be enough for the rest of your life. But if you’re, I mean if you don’t do it at home, then you come to school and you go out to recess and you go to PE then you’re kind of one of the people that don’t do anything, and then you don’t do it at home, and so you kind of have to start at some point (student 23).

Some students though, were already aware of the realities with respect to continuing PA in adulthood. One girl said, she may not be active when she is older, “Because you're older and have more responsibility to take care of” (student 22).

Discussion

The purpose of this study was to identify students' perceptions of enjoyment and usefulness of PE as it is delivered by a systematically implemented, district-wide program (i.e., the SSPE model). The study used a mixed-methods approach to determine those student perceptions and attitudes, beginning with an instrument grounded in attitude theory. Bagozzi and Burnkrant (1979) describe attitude as a two-component concept, composed of enjoyment (affective) and usefulness (cognitive). Subramaniam and Silverman (2007) argue that focusing on only one component may not accurately predict
Children’s Perceptions of SSPE

attitude. Correctly understanding attitude is essential, however, as it influences intentions and behavior (Silverman & Subramaniam, 1999).

The majority of students in this study expressed positive attitudes toward physical education (overall enjoyment mean = 2.71 out of 3; overall usefulness mean = 2.69 out of 3). Little research has focused on elementary school student attitudes and the minimal research that does exist yielded inconsistent findings at best (Graham, 2008). In 1995, a monograph on student voice appeared in the Journal of Teaching in Physical Education. Dyson (1995) found elementary school students viewed PE positively. However, many of the other studies revealed students were dissatisfied with the classes or felt alienated from PE altogether (Graham, 1995b). Solmon and Carter (1995) found students perceived PE positively, but further questioning of students revealed PE meant following rules or waiting in line to many, thus revealing the potential for inconsistencies when student perceptions are examined more closely. This suggests a need to look at student attitudes in greater depth than what can be learned from the sole use of a survey. The comments from focus group interviews and individual interviews provide a foundation for better understanding why student attitudes in this study were so positive.

First, teacher engagement helped students enjoy PE. Researchers point out that when teachers create an environment fostering success and help students feel confident, positive attitudes are engendered (Hagger, Chatzisarantis, & Biddle, 2002; Portman, 1995). This study found teachers in the district were encouraging with their students, consistently inspiring the students with comments like “don't give up on yourself,” or giving them specific feedback on how they could improve. Additionally, teachers were
observed engaging in numerous, positive interactions with students throughout lessons. Chung and Phillips (2002) believe physical educators are a vital influence on student attitudes toward PE simply because of their regular close contact with students. Furthermore, Gibbons and Blacklock (1998) suggest creating an environment where students feel valued by their teacher. The positive environment and student-interactions teachers create may be reasons why students demonstrated such positive attitudes toward PE.

Closely tied to positive teacher encouragement are students' positive perceptions of their teachers’ management strategies. While the majority of the students in this study felt their teachers treated the class fairly, even citing this as the reason for enjoying PE, students at School 2 indicated they did not like their teacher's discipline strategy, when punishing the whole class for the misbehavior of one or two students. This school scored the lowest on the attitude instrument – although still overwhelmingly positive (overall enjoyment mean = 2.56 out of 3) – and disdain for the punishment used there may be one plausible explanation of why School 2 scores were lower.

Enjoyment of physical activities is another aspect associated with positive attitudes. Studies have pointed to novel activities as a reason for kids enjoying PE (Chen, Darst, & Pangrazi, 1999; Hohepa et al., 2006; Rikard & Banville, 2006). Similarly, Carlson (1995) found students were often bored when presented with the same activities and sports year after year. Similarly students in the present study enjoyed learning a variety of new activities often citing the variety of activities as a basis for considering PE to be fun.
Students in this study also indicated they liked PE because it gave them an opportunity to socialize with friends. Previous research with high school students also found students like the social nature of PE (Hohepa, et al., 2006). Some studies found PE teachers stratified students based on gender (Solmon & Carter, 1995). In contrast, the students in this study indicated they enjoyed working with anyone in their class, not just their friends, and the teachers encouraged working with different partners and showing respect for all classmates. As social opportunities continue to be a reason adolescents enjoy PA (Prusak & Darst, 2002) physical educators should do all they can now to promote positive social interactions in their classes.

An interesting finding is the data indicating students liked PE as a time to release their energy and take a break from regular, pencil and paper, classroom activities. When exploring adult perceptions of PE, Graham (2008) found classroom teachers perceive PE as a break for kids. However, PE teachers viewed PE class as a time of learning. While results from this study indicate students do have a rudimentary understanding of many of the health concepts related by their teachers during class time, there also seems to be some disparity in what students perceive as the purpose of PE. Perhaps some students see it merely as a break from classes, as one kid questioned, “What are we learning in PE?” or maybe students do see PE as a time to learn about being healthy.

What seems to be the missing piece is the shortage of overt assessment in the district's program. In a study on student perceptions of fitness testing Hopple and Graham (1995) point out, “The apparent gap between what teachers in this study expected that their students learn and the knowledge students actually demonstrated is a reminder that
just because we teach it, does not mean they learn it” (p. 415). Hopple and Graham go on to recommend periodic assessment of what students are retaining from their teachers' intended instruction. Many of the students in this study seemed to grasp the health concepts teachers conveyed while others did not. Perhaps students in this district understand an appropriate amount of health concepts for their age and enough to make healthy lifestyle decisions, yet without some form of assessment, the extent of these students' learning is unclear.

As previously mentioned, both affective and cognitive elements influence the development of attitude toward PE. In PE programs it is important not only that teachers try to make PE enjoyable, but that they also help students find personal meaning in the activities (Graham, 1995b; Subramaniam & Silverman, 2007). Hagger et al. (2002) explain that attitudes play a vital role in forming intentions, and that PE teachers must do all they can to help students develop positive attitudes toward PA. The importance of PE teachers in influencing students' PA levels is especially critical in an era plagued by childhood obesity and a time when PE may be students' only opportunity for PA (Graham, 2008). This study found participants enjoyed continuing the activities they were learning in PE class after school. This is a very positive result, showing the program is helping students to develop healthy and active lifestyles as recommended by NASPE (2004, standards 3 & 6). It is similar to other findings showing the relationship between attitudes toward PE and leisure-time exercise levels (Chung & Phillips, 2002).

Another positive finding was most students' intentions to stay physically active throughout their lives. Though difficult to establish clear connections, research suggests
that early, positive experiences with PE may lead to PA later in life (Subramaniam & Silverman, 2007; Trudeau et al., 1999). These findings may indicate the success of the SSPE program to foster positive attitudes and influence students' physical behaviors now and possibly in the future. Indeed, “The goal of physical education is to develop physically educated individuals who have the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity” (NASPE, 2004, p. 11).

One thing that really stands out in this study is the consistency of findings. Success in PE is hard to come by, especially at a widespread level (Siedentop & Locke, 1997). This study found consistent positive attitudes at all schools in the sample. In addition, both survey data and student comments revealed positive attitudes toward PE. Finally, in contrast to past research, which has commonly shown gender and ethnic differences in student attitude (Chung & Phillips, 2002; Hicks, Wiggins, Crist, & Moode, 2001; Silverman & Subramaniam, 1999), there were no gender or ethnic differences in this study.

When examining the data, a higher-order relationship seems to emerge between the categories. Since teachers are engaged and have an appropriate management style and appealing curriculum, students are engaged and find PE enjoyable and useful. This leads to positive attitudes toward PE and PA, which in turn foster more PA behaviors outside of class. This might not be the case without all of the elements of SSPE in place, including (a) a mandated district-wide curriculum, (b) a district coordinator, (c) a university partnership, and (d) ongoing professional development. Prusak et al. (in-press) believe that only through the interaction between the model's key elements can systemic success
be realized. While not all components of the SSPE model were observed by the researcher, since this study focused on what was happening at the student level, the researcher did observe the common curriculum, methodologies, and language at all schools. The effects of a district coordinator were also visible, as barriers which commonly plague teachers, such as, lack of administration and collegial support, lack of equipment, poor facilities, large class sizes, and marginalization of subject matter, were not apparent.

Researchers point out that enough studies have been conducted on programs that do not work and recommend instead studying success wherever it can be found (Graham, 1995a; Ward et al., 1999). The results of this study provide evidence of a successful PE program from the students' point of view. Furthermore, questionnaire results and student comments, from a purposeful sample representative of the district, indicate that success at the district level is possible.

This study was limited to fifth and sixth graders in a district in a southwestern state in the United States. The students volunteered to participate, so those who did not volunteer perhaps did not because they do not like PE. In addition, comments in the focus-group and individual interviews were limited to interview prompts and other topics brought up students, perhaps leaving some topics unexplored.

Conclusion

As many researchers have argued, it is vital that physical educators strive to know and understand the thoughts, feelings, and interests of students. More studies should be conducted on student attitudes toward PE and student voice should be considered as
programs are evaluated. Silverman and Subramaniam (1999) emphasize the importance of attitudes toward PE as they influence PA intentions and behaviors. For some, PE may be the only time to develop enjoyment of PA (Graham, 2008). Physical educators, teacher educators, and researchers must do all they can to help promote positive attitudes among students.

The students in this study overall demonstrated positive attitudes toward PE. This was due to curriculum and teachers perceived as both enjoyable and useful. The quality of the PE these students received was possible through the interaction of each critical element of the SSPE model. The positive perceptions of students validate the success of the SSPE model and highlight the need for this model to be replicated elsewhere.
References


Table 1

*Survey Questions*

1. The activities I learn in my PE class make my PE class interesting for me.
2. The activities I learn in my PE class make learning unpleasant for me.
3. The activities I learn in my PE class get me excited about PE.
4. My PE teacher makes my PE class seem unimportant to me.
5. I feel the activities I learn in PE make my PE class boring for me.
6. I feel the activities I learn in my PE class are useless to me.
7. The activities I learn in my PE class seem important to me.
8. My PE teacher makes my PE class seem important to me.
9. My PE teacher makes my PE class interesting for me.
10. The activities I learn in my PE class are useful to me.
11. I feel my PE teacher makes learning in my PE class fun for me.
12. I feel my PE teacher makes my PE class boring for me.
13. I feel the activities I learn in my PE class are valuable to me.
14. The activities I learn in my PE class seem unimportant to me.
15. My PE teacher makes learning in my PE class unpleasant for me.
16. My PE teacher makes my PE class useful for me.
17. I feel my PE teacher makes learning in my PE class valuable for me.
18. I feel my PE teacher makes learning in my PE class useless for me.
19. My PE teacher gets me excited about PE.
20. I feel the activities I learn in my PE class make learning fun for me.
Table 2

Sample Interview Questions

1. Tell me about what you're doing right now in PE.
2. What did you like most about PE?
3. Is there anything you don’t enjoy doing in PE?
4. What makes learning fun for you in PE?
5. What things does your teacher do that helps you enjoy PE?
6. Does your teacher know you by name?
7. Do you feel comfortable in your PE class?
8. Do you feel like you fit in?
9. Do you feel successful in PE?
10. What does your teacher do to help encourage you?
11. How does your teacher make you feel in PE?
12. In your opinion, what about PE is useful to you?
13. In your opinion, what about PE is not useful to you?
14. What do you do to be physically active? Do you play sports?
15. Are there any activities you've learned in PE that you now do? (Which activities?)
16. What does PE do in helping you to be active?
17. Has PE been helpful to you in being more healthy? How?
Table 3

Survey Means and Standard Deviations by School

<table>
<thead>
<tr>
<th>School</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enjoyment</td>
<td>2.79</td>
<td>.21</td>
<td>26</td>
<td>2.52</td>
</tr>
<tr>
<td>Usefulness</td>
<td>2.78</td>
<td>.28</td>
<td>26</td>
<td>2.54</td>
</tr>
</tbody>
</table>

| Teacher | | | | | | | | | | | | |
| Enjoyment | 2.87 | .24 | 26  | 2.61 | .46 | 48  | 2.67 | .40 | 81  | 2.75 | .37 | 113 |
| Usefulness | 2.88 | .23 | 26  | 2.70 | .36 | 48  | 2.64 | .43 | 81  | 2.70 | .37 | 113 |

| Overall | | | | | | | | | | | | |
| Enjoyment | 2.83** | .18 | 26  | 2.56** | .41 | 48  | 2.68 | .37 | 81  | 2.77** | .30 | 112 |
| Usefulness | 2.83 | .23 | 26  | 2.62 | .39 | 48  | 2.70 | .36 | 81  | 2.71 | .35 | 113 |

Note: Tukey Post Hoc test showed students at School 2 enjoyed physical education less than at Schools 1 ($p \leq 0.01$) and 4 ($p \leq 0.001$).
### Table 4

*Students’ Perceptions of Physical Education*

<table>
<thead>
<tr>
<th>Categories and Themes</th>
<th>number of comments</th>
<th>percent of whole</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Teacher Engagement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Well-managed classes</td>
<td>95</td>
<td>13.5%</td>
</tr>
<tr>
<td>b. Encouraging behavior</td>
<td>39</td>
<td>5.5%</td>
</tr>
<tr>
<td>c. Personal interaction</td>
<td>28</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>162</td>
<td>23%</td>
</tr>
<tr>
<td><strong>2. Student Engagement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. PE is fun</td>
<td>145</td>
<td>20.6%</td>
</tr>
<tr>
<td>b. Socializing</td>
<td>49</td>
<td>7%</td>
</tr>
<tr>
<td>c. Variety and new activities</td>
<td>41</td>
<td>5.8%</td>
</tr>
<tr>
<td>d. Assessment</td>
<td>40</td>
<td>5.7%</td>
</tr>
<tr>
<td>e. Break from the classroom</td>
<td>20</td>
<td>2.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>295</td>
<td>41.8%</td>
</tr>
<tr>
<td><strong>3. Impact of PE on Students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Knowledge of health concepts</td>
<td>119</td>
<td>16.9%</td>
</tr>
<tr>
<td>b. Influence on students’ present behaviors</td>
<td>79</td>
<td>11.2%</td>
</tr>
<tr>
<td>c. Influence on students’ future behaviors</td>
<td>50</td>
<td>7.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>248</td>
<td>35.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>705</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total positive from all themes</strong></td>
<td>603</td>
<td>85.5%</td>
</tr>
<tr>
<td><strong>Total negative from all themes</strong></td>
<td>102</td>
<td>14.5%</td>
</tr>
</tbody>
</table>
Appendix A

Prospectus
Chapter 1

Introduction

The benefits of regular physical activity are well accepted. Preventing disease, fighting obesity, and promoting lifetime wellness, are some of the chief benefits physical activity offers (Le Masurier & Corbin, 2006; Trudeau & Shephard, 2005; United States Department of Health and Human Services, 2000). Physical education can play a key role in helping children be physically active in the present (Morgan, Beighle, & Pangrazi, 2007) and may also promote continued activity through adulthood (Subramaniam & Silverman, 2007; Trudeau, Laurencelle, Trembly, Rajic, & Shephard, 1999). The role physical education plays in meeting the physical activity needs of children and adolescents is increasingly important in light of decreased activity in other areas of society (Le Masurier & Corbin, 2006).

Mere participation in a physical education program, however, does not mean a child will be physically active outside of class or even during class. To make the greatest difference, students must be exposed to quality physical education. Marsden and Weston (2007) warn against equating “sport” with “physical education” and recommend that quality physical education, especially for younger children, focus on students’ physical literacy, developmental movement, and enjoyment and participation. Enjoyment is also an aspect Siedentop & Locke (1997) suggest is key for quality physical education. The authors describe a process in which quality physical education programs will engage most students enthusiastically in learning, which then helps children to value physical activity, and finally adopt physically active lifestyles. This also reflects the standards of
the National Association of Sport and Physical Education (NASPE, 2004) which have multiple references to helping children enjoy physical education over a lifetime.

Unfortunately, there is little accountability in the delivery of physical education and while there may be pockets of excellence, widespread quality physical education is hard to come by (Siedentop & Locke, 1997). Some districts and states have recently taken accountability initiatives such as that of the Saber-Tooth Reform Project, which approached curriculum reform on a larger scale (Ward, Doutis, & Evans, 1999), however, the majority of physical educators are on their own. Many teachers strive to offer excellent physical education, but the profession is also plagued by teachers content to “roll out the ball” (Cawley, Meyerhoefer, & Newhouse, 2006).

While many teachers try to do their best to influence and inspire children through physical education, it is not always easy. Physical education teachers often face barriers to success. Prusak, Graser, Pennington, Beighle, and Morgan (in press) listed these as: “lack of administration and collegial support, lack of equipment, poor facilities, large class sizes, poor scheduling, philosophical and curricular differences, marginalization of subject matter, isolation, and lack of opportunities for professional development” (p. 4). In addition, Arnold (1999) found teachers believed quality physical education programs were difficult to actualize because of negative perceptions of decision makers, lack of instruction time, inadequate facilities and staffing, and deficiencies in teacher preparation programs.

Finding a physical education program free of barriers is indeed a difficult undertaking. Many studies document what does not work in physical education (Graham,
Children’s Perceptions of SSPE

1995b; Rink, 1992) while only a few highlight successful programs. Siedentop and Locke (1997) recommend studying systemic success when it is found. In addition, Graham (1995b) points out,

If researchers can identify programs that have a positive impact on students, it would be helpful to understand, for example, why the impact is positive, what these positive programs look like, and perhaps most importantly how the teachers were able to create and sustain their positive programs in a time of budgetary constraint when school boards and administrators are being forced to cut “frills” such as art, music, and physical education. (p. 481)

Recently, Prusak et al. (in press) examined a district-wide physical education program which they believe meets the definition of success. The program, which they refer to as Systematic Success in Physical Education (SSPE) serves more than 40,000 children yearly and is implemented by a team of qualified specialists, key administrators, and university professionals. A complex, yet dynamic, system of accountability drives the success of the program and helps to discipline the thoughts and actions of those running it. In addition, accountability is the overarching force in four key components the authors believe are vital to sustaining the program’s culture: a) a mandated district-wide curriculum, b) a district coordinator, c) university partnership, and d) ongoing professional development.

With the four components working together teachers can focus on doing what they do best: teach. This may directly translate into increased student outcomes, such as more physical activity time. Indeed, Morgan et al. (2007) revealed that children in the
program studied by Prusak et al. (in press) were engaged in physical activity at least 50 percent of class time, another key indicator of the quality of the program.

The Morgan et al. (2007) study indicates that the physical education program in the Prusak et al. (in press) study not only has children active for 50 percent of class time, but also increases children’s leisure physical activity rates. While the Prusak et al. study describes how teachers and administrators were able to create and sustain what is a large scale, successful, district-wide physical education program, children’s perceptions of this model of physical education remain unclear in determining the true impact of the program.

In general, students’ views of all areas of education are underexplored (Erickson & Schultz, 1992; Storz, 2008). One reason is the unfounded assumption that teachers already “know and understand the needs and interests, attitudes and values of their students” (Graham, 1995a, p. 365). Researchers point out that educational practices have long been conducted with only adults’ perspectives and ideals in mind, even though children are the main consumers of curriculum (Erikson & Schultz, 1992). Brooker and MacDonald (1999) cite the connection of physical education and recreation outside of school as one reason why educators should listen to students. By listening to student voices about what activities are valuable to them, Brooker and MacDonald say, curriculum may be modified and in turn may positively influence children’s behavior outside of class. Cook-Sather (2002) also agrees that listening to students’ views may positively impact curriculum decisions.
Research on attitude lays the foundation for accessing children's views and provides a theoretical framework to move forward in research. Silverman (2005) describes the path of attitudes, which begins with the close connection between perceptions and attitudes, and ends with attitudes affecting behavior. Silverman (2005) describes how both the teacher and curriculum influence a student’s perceptions of physical education, which ultimately affects their attitudes. The author believes if teachers help promote positive attitudes toward physical education, students will enjoy physical activity more and hopefully continue to enjoy physical activity over a lifetime. Steinhardt (1992) further points out that perceptions and attitudes are usually formed early in life and may influence both attitudes and participation patterns throughout a child’s life. A better understanding of students’ attitudes and beliefs about physical education can greatly influence teacher effectiveness and the design of programs to address the needs of their students (Fox, 1991; Steinhardt, 1992).

The need that many researchers now recognize, is the importance of helping students to value physical education in the present, in hopes of influencing later motivation toward and participation in physical activity (Fox, 1991; Graham, 2008). While longitudinal studies are difficult to conduct, limited available research suggests early positive physical education experiences do indeed positively influence adults' voluntary physical activity patterns (Trudeau et al., 1998).

Simple surveys reveal that most elementary school students do have positive perceptions of physical education (Graham, 2008; Solomon & Carter, 1995). However, researchers suggest that using questionnaires alone may limit findings to potentially
Children’s Perceptions of SSPE

biased perceptions and leave valuable insights unexamined (Gerdes & Conn, 2001; Hohepa, Schofield, & Kolt, 2006). Additionally, Erikson and Schultz (1992) point out that while surveys may uncover broad patterns, they offer relatively little substance. Even though interviews may present difficulties in collecting and generalizing the data, qualitative methods can present a rich picture of student perceptions in ways that simple surveys cannot (Silverman & Subramaniam, 1999).

For example, a study by Solmon and Carter (1995) examined student perceptions of physical education through interviews, observations, and drawings. The researchers found that most children perceived physical education positively and could define physical education as exercise and learning fitness and health concepts. However, the data also indicated that physical education meant following rules, waiting turn, and standing in line to many of the students. Other studies on student perceptions of physical education found that children often perceive barriers to participation in physical education, such as lack of meaning and variety (Gibbons & Humbert, 2008), limited opportunities during school hours, and limited choices during physical education classes (Hohepa et al., 2006).

Finally, researchers recommend program assessment through the eyes and voices of students (Graham, 1995b; McCullick, Metzler, Cicek, Jackson, & Vickers, 2008). McCullick et al. (2008) found valuable information could be gleaned from children, especially when questioning students’ views of overt teacher behaviors. While the authors do not purport that student voice should be the only source of program assessment, they do point out that students’ matter-of-fact approach toward evaluation may often reveal
more truth than adults are willing to see. Graham (1995b) and McCullick et al. (2008) also state that using researchers outside of the program to conduct interviews and other data collection is the most appropriate way to conduct an evaluation.

Accessing student voice in physical education should provide invaluable insights to teachers and researchers, which can then be used to evaluate program effectiveness and guide future direction.

**Statement of the Problem**

The purpose of this study is to examine children’s perceptions of physical education as it is delivered via the SSPE program in their school district. The study will use a attitude questionnaire to determine student attitudes toward physical education, including their feelings of enjoyment and usefulness of the SSPE program, and follow-up interviews to deeper explore students’ perceptions of physical education.

**Definition of Terms**

*Systematic Success in Physical Education* - a physical education program delivered to elementary school students district-wide in a southwestern state in the United States.

*Student Perceptions* - what a student thinks, believes, feels, and says.

*Student Attitude* - what a student feels toward a subject. Attitude includes feelings of enjoyment and feelings of usefulness.

**Assumptions**

It is assumed that students of this age can be counted on to answer in a straightforward and honest manner when filling out the survey and answering interview
questions. It can also be assumed that children's responses will not be influenced by their peers during individual interviews.

Delimitations

This study is delimited to fifth and sixth graders who have attended school in the study's district for at least three years. Participants will not be randomized.

Limitations

This study will be limited to students at four elementary schools, with a majority of Caucasian students, in a southwestern state in the United States.

Significance of the Study

Research tells us that physical education can be an important means of providing children with the physical activity they need to live healthy lives (Morgan et al., 2007; Subramaniam & Silverman, 2007; Trudeau et al., 1999). Research also tells us that not all physical education programs are equal, and that in order to effectively reach children, quality physical education must be delivered (Cawley et al., 2006; Marsden & Weston, 2007; Steinhardt, 1992). One way of measuring the quality of a program is to examine students' perceptions of physical education (Graham, 1995b; Subramaniam & Silverman, 2007). This study will explore student perceptions of physical education as delivered via the SSPE program, using an attitude questionnaire and follow-up interviews, to determine if students feel this is a quality physical education program.
Chapter 2

Review of Literature

Student Voice

Throughout the field of physical education, researchers have attempted to explore the feelings, interests, perceptions, attitudes, opinions, and values of students. These concepts can all be grouped under the umbrella of student voice and for the purpose of this paper, student voice will be used to refer to all of these. More specifically, attitudes will "represent an individual's positive or negative, favorable or unfavorable feelings regarding the attitude object" (Silverman & Subramaniam, 1999, p. 98), while perceptions will more broadly refer to what an individual thinks, believes, feels, and says (Dyson, 1995; Graham, 1995a; Solmon and Carter, 1995).

Historically, students’ views of all areas of education are underexplored (Erickson & Schultz, 1992; Storz, 2008). One reason is the unfounded assumption that teachers already “know and understand the needs and interests, attitudes and values of their students” (Graham, 1995a, p. 365). Erikson and Schultz (1992) purport that “student voice” has not only been ignored, it has been silenced. Brooker and MacDonald (1999) agree that student voices have been ignored across the board in education and further emphasize the danger of ignoring students in physical education, an already marginalized subject. Smith (1991) also expressed contempt for ignoring students when he put forth the question "Where is the child in physical education research?" and Cook-Sather (2002) claims that students are “the missing voice in educational research” (p. 5).
Even though children are the main consumers of education, they have rarely been consulted and educational practices have long been conducted with only adults’ perspectives and ideals in mind (Dyson, 1995; Erikson & Schultz, 1992). Mitchell and Chandler (1993) point out that teachers must come to understand that their perceptions might be different than those of their students. Furthermore, if teachers do not understand what children's perceptions are, nor what they, as consumers of education, value, teachers may fail to implement experiences that are valuable or appealing to students (Graham, 1995a). In contrast, awareness and increased understanding of student perceptions can influence teacher effectiveness and program decisions (Fox, 1991; Silverman, 2005; Steinhardt, 1992).

Silverman (2005) argues that to have the greatest impact, curriculum should be tailored to students' interests and lifestyles. Others agree that curriculum should focus on students’ interests and needs (Graham, 1995a & b; Napper-Owen, Kovar, Ermler, & Mehrhof, 1999), be more meaningful, and provide more choice (Rikard & Banville, 2006). Yet despite recommendations to adapt curriculum offerings to better suit student needs (Napper-Owen et al., 1999), little has been done to change practices, as evidenced by continued cries from students to bring more choice and more meaning to physical education (Hohepa et al., 2006; Rikard & Banville, 2006; Subramaniam & Silverman, 2007). As more and more studies are being conducted to access student voice, it is becoming increasingly clear what students' needs and interests are, and what they do and do not like about physical education.
Survey data provides the foundation for accessing student voice. (Graham, 2008; Solmon & Carter, 1995). Easy to administer and analyze, surveys can be used to explore the breadth and scope of student perceptions (Patton, 2002). Yet inquiry of student voice should not end with broad surveys. Researchers suggest that using questionnaires alone may limit findings to potentially biased perceptions and leave valuable insights unexamined (Gerdes & Conn, 2001; Hohepa et al., 2006). Additionally, Erikson and Schultz (1992) point out that while surveys may uncover broad patterns, they offer relatively little substance. Gerdes and Conn (2001) say that other qualitative methods allow stakeholders, in this case children in physical education, to tell their own story.

Although interviews may present difficulties in the process of collecting and generalizing the data, such qualitative methods can present a rich picture of student perceptions in ways that simple surveys cannot (Silverman & Subramaniam, 1999). Patton (2002) explains that since feelings, thoughts, and intentions cannot be observed, interviews are used to enter a person’s perspective. The research on student voice has used both surveys and questionnaires and typically takes on two forms: examining student attitudes and examining student perceptions.

*Student Attitudes toward Physical Education*

While many researchers have traditionally studied attitude as a unidimensional construct, Silverman and Subramaniam (1999) argue that attitude involves a cognitive and affective aspect and that both dimensions must be measured to ensure the attribute is accurately captured. The authors go on to explain that while some studies have claimed to examine attitude, all too often a theoretical framework is not used to guide data collection
Children’s Perceptions of SSPE

and interpretation, nor are reliability and validity measures taken. The two-dimension construct of attitude stems from a Bagozzi and Burnkrant (1979) definition of an affective component of attitude, measuring the attraction or feeling toward a subject, and a cognitive component, measuring beliefs about the characteristics of a subject. More recently, Subramaniam and Silverman (2000) built on this knowledge to study students' enjoyment (affective component) and perceived usefulness (cognitive component) of physical education.

Silverman (2005) explains the importance of studying attitude in physical education by describing the process which begins with the close connection between perceptions and attitudes, and ends with attitudes affecting behavior. Silverman believes if teachers help promote positive attitudes toward physical education, students will enjoy physical activity more and hopefully continue to enjoy physical activity over a lifetime. Steinhardt (1992) further points out that perceptions and attitudes are usually formed early in life and may influence both attitudes and participation patterns throughout a child’s life.

Attitude literature lays the foundation for understanding children's views and provides a theoretical framework to move forward in research. In contrast, studies on perceptions delve deeper into understanding the why behind positive or negative attitudes. Exploring perceptions gets to the core of what students think, feel, prefer, and value.
Student Perceptions toward Physical Education

While surveys on attitude show most elementary school students to have positive attitudes of physical education (Graham, 2008; Solmon & Carter, 1995) with slightly decreasing attitudes as children get older (Graham, 2008), much of the data on perspectives are negative. Perhaps this is because of the samples chosen, or perhaps it is because students are misunderstood and there is a false sense of security that all is well. For example, a study by Solmon and Carter (1995) examined student perceptions of physical education through interviews, observations, and drawings. The researchers found that most children perceived physical education positively and could define physical education as exercise and learning fitness and health concepts. However, the data also indicated that physical education meant following rules, waiting turn, and standing in line to many of the students.

Other studies also show that children can articulate what teachers’ goals are and accurately describe the purpose of physical education (Gibbons & Humbert, 2008; Hohepa et al., 2006), yet studies also report that students struggle to attach personal meaning to the activities or find physical education valuable (Carlson, 1995; Gibbons & Humbert, 2008; Hopple & Graham, 1995). In the Gibbons and Humbert (2008) study of adolescent females, participants could explain the role of physical activity in health, and the role of physical education in activity and knowledge of health. Moreover, the girls wanted to find more meaning in the activities that were offered, but struggled to see any personal value. One girl emphatically exclaimed, "I don't like basketball now, I'm not
Children’s Perceptions of SSPE

go to like it when I'm old, so why can't I do something I might do when I'm old like swimming or aerobics?” (p. 176).

Lack of personal meaning was a barrier expressed over and over again by students. The Carlson (1995) study on student alienation from physical education reported perceived lack of meaning as the most salient feature in student interviews. One student’s frustration illustrates how lack of meaning and negative attitudes work together against physical education:

Sometimes I might change and just mope around and not really do what they want me to do, or I might just sit down and say, ‘Don’t bug me, I don’t want to do this. It is not worth it,’ and I get this really negative attitude.… Sometimes I get really mad at myself that I don’t try harder, but then I think about it, and I think what is important to me? Being good at basketball and softball, is that important to me? And no it is not! (p. 474)

Fitness testing is an area of physical education especially lacking meaning for students. Hopple and Graham (1995) reported that students do not understand why they must take the mile-run fitness test, nor do they view fitness testing in general as authentic, meaningful, or important. Furthermore, students viewed the mile-run as a highly negative experience to be avoided if possible. Keating (2003) contends that fitness testing is one of the biggest reasons why children’s attitudes toward physical education are negative. In contrast, Sampson (2008) found that student perceptions of the FITNESSGRAM fitness test were positive, especially when allowed to work with a partner. Sampson also found that performing the PACER test was preferred to the mile-
run and contributed to the positive attitudes of students. Sampson’s results may differ precisely because FITNESSGRAM testing has sought to overcome the negative barriers associated with traditional fitness tests.

Another component contributing to negative perceptions of physical education is the lack of choice and opportunity. Hohepa et al. (2006) explored student perceptions of the benefits of and barriers to physical activity. Key among the authors’ findings were student perceptions of the barriers to physical activity at school during regular school hours because of limited opportunities, and during physical education classes because of limited choices. Students in this study expressed the desire to be involved in determining what activities would be offered. Similarly, Rikard and Banville (2006) found that high school participants expressed the desire for more variety and more elective choices within physical education.

Additional barriers of positive perceptions for physical education students include competition and social comparisons. The students in the Dyson (1995) study explained how a teacher’s emphasis on competition could make them feel stupid and reduce their participation and enjoyment. A study with low-skilled sixth-graders found competition and bullying to be particularly problematic (Portman, 1995). The students in the Portman study felt that they were too often placed in competitive situations which then led to public criticism from their peers. As might be expected, social comparisons continued to plague high school gym classes. High school students in the Bauer, Yang, and Austin (2004) study explained how competition, along with frequent gender and weight-related bullying inhibited them from fully participating in or enjoying physical activities.
Children’s Perceptions of SSPE

Yet not all data on student perceptions are negative. Studies on student perceptions reveal enjoyment to be at the core of what students value and desire in physical education. Dyson (1995) asked third and fifth-grade students about their perceptions of physical education and found that having fun was one of the main goals of students. Hohepa et al. (2006) also found fun to be central in high school students’ perceptions. The students in the Hohepa et al. study described their perceived benefits of physical education and named fun at the top of the list. For participants who did not view physical education as fun, the recommendation to make it so was handily available (Gibbons & Humbert, 2008; Hopple & Graham, 1995).

Students in the Hohepa et al. (2006) study also had recommendations to improve physical education. Just as many experts have recommended, students proposed that curriculum be modified to meet their needs and interests. Students also proposed more choices be offered within physical education curriculum and that more opportunities for physical activity be offered around school. Specific suggestions included arranging games and giving out equipment and gear at lunch.

Student perceptions and suggestions may also be helpful in assessment. McCullick et al. (2008) put student perceptions to use to help assess student teachers and a Physical Education Teacher Education Program (PETE). The authors found valuable information could be gleaned from children, especially when questioning students’ views of overt teacher behaviors. While the authors do not purport that student voice should be the only source of program assessment, they do point out that students’ matter-of-fact approach toward evaluation may often reveal more truth than adults are willing to see.
Along with Graham (1995b), McCullick et al. (2008) advocate program assessment through the eyes and voices of students.

*Quality Physical Education*

What constitutes a quality physical education program is not always clearly defined in the literature. Varying definitions have been presented and key themes have emerged. In general, quality physical education can be examined through three channels: students' perceptions, student outcomes, and teacher qualifications and support.

Many researchers agree that defining quality physical education can be difficult and is often a disputed topic (Cawley et al., 2006; Marsden & Weston, 2007; Steinhardt, 1992). Cawley et al. (2006) contend that many physical education classes are inadequate in promoting exercise among students and that an "ideal," scientifically-determined curriculum has yet to be established. Similarly, Marsden and Weston (2007) describe how the term “physical education” has often been equated with "sport" and has accomplished little to meet the needs of children. Yet Marsden and Weston believe that while the term "quality physical education" may be a debated topic, it is not completely elusive. The authors recommend that quality physical education, especially for younger children, focus on students’ physical literacy, developmental movement, and enjoyment and participation.

NASPE (2004) also provides a key to how quality physical education might be defined. The national standards for physical education open with a clear description of what the purpose of physical education should be. The standards begin: “The goal of physical education is to develop physically educated individuals who have the
knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity” (NASPE, 2004, p. 11). In addition, NASPE standard number six describes a physically educated person as one who “values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction” (NASPE, 2004, p. 11). In addition to NASPE, many other sources point to enjoyment as a key component of quality physical education (Gibbons & Humbert, 2008; McKenzie & Kahan, 2008; Portman, 1995; Siedentop & Locke, 1997; Silverman, 2005).

Helping children find personal meaning in physical education is the second aspect of student perceptions contributing to the definition of quality physical education. Many researchers recognize the importance of helping students to value physical education in hopes of influencing activity levels outside of the classroom (Chung & Phillips, 2002; McKenzie & Kahan, 2008). Helping students to value physical activity now may also positively affect future motivation toward and participation in physical activity (Fox, 1991; Graham, 2008; Subramaniam & Silverman, 2007). Studies examining student perceptions, which have previously been explored in depth in this paper, highlight the importance of student voice in determining the quality of a program.

Another way to define quality physical education is through student outcomes. One outcome outlined by the U.S. Department of Health and Human Services (USDHHS, 2000) is the amount of class time spent in physical activity. Many schools struggle to get kids active for even half of the allotted class time (Cawley et al., 2006; McKenzie & Kahan, 2008), which is the minimum standard proposed in the Healthy People 2010 objectives (USDHHS, 2000). Cawley et al. (2006) found that on average, high schools
were engaging students for 16 minutes of each physical education class. Similar results were found for active class time in elementary school physical education programs, with studies reporting an average of 37 percent active class time (McKensie, 2006).

In contrast, Morgan et al. (2007) found the physical education program in the Prusak et al. (in press) study not only has children active for 50 percent of class time, but also increases children’s leisure physical activity rates. However, such cases seem to be a rarity in the literature, and one contrasting study even indicated that more physical activity time in school may actually decrease students’ voluntary physical activity time (Cawley et al., 2006). The rarity of success on student outcomes in the Morgan et al. (2007) study highlights the need to further explore the effects of this physical education program on children’s perceptions and attitudes.

The third student outcome characteristic of a quality physical education is promoting a healthy lifestyle through adulthood. Conceivably the most difficult to achieve, it is also the most difficult to measure. Limited available research suggests early positive physical education experiences do indeed positively influence adults' voluntary physical activity patterns (Trudeau et al., 1999). However, other studies have failed to find any significant influence of childhood experiences on adult physical activity habits (Silverman & Subraniam, 1999). Despite the lack of concrete evidence, many researchers agree that promoting a lifetime of health should be a primary goal of quality physical education (Le Masurier & Corbin, 2006; Siedentop & Locke, 1997; Silverman, 2005; Silverman & Subraniam, 1999; Trudeau & Shepard, 2005).
Children’s Perceptions of SSPE

The final aspect of quality recurring in the literature refers to teacher qualifications and support. NASPE (2004) outlines the need for a qualified teacher who has adequate equipment and facilities and who teaches well-designed lessons. Further detail on characteristics of quality programs can be found by examining criteria for NASPE’s STARS program, which recognizes schools with outstanding physical education programs (NASPE, 2006). Qualifying criteria for the STARS program fall into four categories: a) support resources, b) professional growth, c) curriculum and instruction, and d) communication. Subtopics such as facilities, equipment, continuing professional development, in-service training, and instruction practices especially highlight the importance of teacher qualifications and support (NASPE, 2006).

Yet, getting the kind of support necessary to qualify for STARS or construct a quality physical education program is not as simple as it may seem. Physical education teachers often face barriers to success, such as, “lack of administration and collegial support, lack of equipment, poor facilities, large class sizes, poor scheduling, philosophical and curricular differences, marginalization of subject matter, isolation, and lack of opportunities for professional development” (Prusak et al., in-press, p. 4). Arnold (1999) found teachers believed quality physical education programs were difficult to actualize because of negative perceptions of decision makers, lack of instruction time, inadequate facilities and staffing, and deficiencies in teacher preparation programs.

In addition to the hurdles above, there is a general lack of connection to universities and PETE programs (Siedentop & Locke, 1997). Siedentop and Locke argue that for school programs to be successful they must work in synchrony with PETE
programs. The authors say it is precisely the lack of such a netted relationship that has led to the failure of physical education programs. Similar to the gap between public schools and universities is the gap between what is taught and what is recommended in the literature (Napper-Owen et al., 1999; Steinhardt, 1992). Napper-Owen et al. (1999) assert it is the responsibility of both physical educators and teacher educators to examine practices and determine if they are meeting the needs of students.

Lack of teacher qualification and support may negatively impact students on a few different levels. First, lack of teacher qualification and continuing professional development may result in lower quality teaching and lower student outcomes (Sallis, McKenzie, Alcaraz, Kolody, Faucette, & Hovell, 1997). Second, lack of equipment and facilities often translates to less practice time for students, which in turn makes it difficult for them to feel successful and develop positive attitudes toward physical education (Portman, 1995). Finally, research shows that teachers' motivation decreases as their perceptions of internal and external pressures increase (Pelletier et al., 2002). Pelletier et al. (2002) report that as teachers’ motivation decreases their behaviors toward their students become increasingly controlling. Fox (1991) points out that for intrinsic motivation and positive attitudes in students to flourish, external control and punishments should be minimized. Again, practices must be examined to determine how they affect student attitudes and perceptions to minimize negative results.

Systemic Success in Physical Education

Recently, Prusak et al. (in press) examined a district-wide physical education program which they believe meets the definition of success. The program serves more
than 40,000 children yearly and is implemented by a team of qualified specialists, key administrators, and university professionals. A complex, yet dynamic, system of accountability drives the success of the program and helps to discipline the thoughts and actions of those running it. In addition, accountability is the overarching force in four key components the authors believe are vital to sustaining the program’s culture: a) a mandated district-wide curriculum, b) a district coordinator, c) university partnership, and d) ongoing professional development.

First, a common curriculum provides familiarity while still allowing personal creativity. The curriculum is founded on principles of student-centered learning and combined with common, research-based methodologies which further contribute to successful teaching practices. The mandated curriculum also helps maintain accountability across the district. Second, a district coordinator helps to remove the barriers that teachers commonly face, such as lack of equipment or large class sizes. The district coordinator also conducts frequent evaluations, which not only aid accountability, but also help identify weaknesses and influence decisions on in-service topics. Third, there is a strong partnership between the local university and the school district, which leads to better teacher preparation and a seamless transition from the books to the real world. The close connection also allows the university to share current research with the teachers. Furthermore, ongoing, frequent professional development promotes growth and excellence among teachers. Finally, in-services provide teachers with an opportunity to network and provide mutual support (Prusak et al., in press).
A major advantage of the physical education program in the Prusak et al. study is that many of the aforementioned barriers have been removed and thus teachers can focus on doing what they do best: teach. This may directly translate into increased student outcomes, such as more physical activity time. Indeed, Morgan et al. (2007) revealed that children in the program studied by Prusak et al. were engaged in physical activity at least 50 percent of class time, another key indicator of the quality of the program. The Morgan et al. study also indicates that the physical education program in the Prusak et al. study not only has children active for 50 percent of class time, but also increases children’s leisure physical activity rates.

While teacher qualifications and support and student outcomes are important indications of the success of this program, they only offer a partial picture. Student perceptions on the enjoyment and meaning of the program are yet to be determined.
Chapter 3

Methods

All procedures and methods for the study will be approved by the University Institutional Review Board. A letter of collaboration from the participating school district will be attained and each participant must return a letter of consent/ascent to participate in the study. Anonymity will be preserved throughout collection of the data and names will be changed when reporting results. Throughout the study, data will be kept confidential and secure with the researcher or collaborating school liaisons.

Setting

The schools for this study will be selected from a school district in the southwestern United States. The district includes 51 schools and serves approximately 40,000 K-6th-grade students each year. Of the 51 schools in the district, four will be selected for participation in the study. These schools will be chosen using a maximum variation sampling strategy (Patton, 2002) so as to represent the breadth of demographic factors in the district, focusing mainly on socioeconomic status, ethnic background, and school size. While the demographics for each school may differ, the facilities of each school are highly similar. Each school has extensive outdoor playground facilities including large grass fields and large black tops. In addition, each school has a multipurpose room, which is typically used as a gym, cafeteria, and auditorium. The multipurpose rooms generally have basketball floor markings and baskets, gymnastics mats, and climbing ropes. Each school also has a wide variety of physical education equipment, such as jump ropes, various balls, Frisbees, hockey sticks, etc. There is
enough equipment at each school that students can each have their own piece of equipment during class. Fifth and sixth graders attend physical education twice per week.

The schools employ a district-wide physical education program, which was recently the subject of examination, revealing it as a successful physical education program (Prusak et al., in press). This program employs a common, mandated curriculum, methodologies and language, a district physical education coordinator, frequent professional development, and a partnership university, which enhances professional development and helps prepare future teachers, utilizing similar methodologies for a smooth transition from preparation to practice (Prusak et al., in press).

Participants

Researchers, in collaboration with the district administration, will select a cross-section of four of the 51 schools which are representative of the district demographics (i.e., socio-economic status, diversity, location, and size). All fifth and sixth grade students in participating schools (n = approximately 600) will be invited to participate in this study. Students and their parent/guardians will be provided with a letter of consent/ascent describing the study and their role, as well as their right to withdraw from the study at any time without jeopardy to their class status or grade. Students who return a signed consent/ascent letter will become eligible for participation. All fifth and sixth grade students from participating schools will receive a 20-item survey designed to assess student perceptions of (a) enjoyment in and (b) usefulness of physical education as it is delivered to them as described by the SSPE model.
A purposeful sampling of students from each quartile, representing the least-through the most-positive student perceptions (via attitude survey), will be made in order to identify possible students for follow-up interviews. No less than three girls and three boys (n = 24) from each quartile, regardless of school affiliation, and who have attended their school for at least three years, will be invited to participate in follow-up interviews.

Procedures

Four weeks in advance of data collection, the researcher will contact, via email, phone, or in person, each of the collaborating teachers, principals, and administrators to discuss all study procedures. A packet of information describing the study, its purposes, procedures, and responsibilities of the classroom teachers will be provided three weeks before data collection begins. Two weeks prior to data collection, the classroom teacher will read a prepared explanation of the study to the students at participating schools. Letters of consent/ascent will be provided for students to be taken home, signed, and then returned. Those students who return a signed letter in the intervening two weeks will be eligible to participate in the study. Classroom teachers will collect signed letters daily and turn them over to the researcher. Daily prompts and reminders will be given by the classroom teachers to assist in recruiting sufficient students for the study.

On the day of survey administration, teachers will read a prepared set of proctoring instructions to the students. Students will respond to demographic questions (e.g., grade, gender, ethnicity, etc.) followed by the 20-items attitude scale and record their answers on a bubble sheet. To alleviate students bubbling answers at random, the classroom teacher proctoring the questionnaire will read aloud one question at a time and
then prompt the students to record their answer. The questionnaire will require approximately 15 minutes to complete.

**Data Collection and Sources**

*Attitude toward PE survey.* Student perceptions of (a) enjoyment and (b) usefulness of PE will be assessed by the 20-item, six sub-scale survey previously validated for use with this population (Subramaniam & Silverman, 2000). Responses will be made on a five-point Likert-type scale (1 = strongly disagree through 5 = strongly agree; see Appendix A). Scoring of each sub-scale is done by averaging its associated items.

*Focus-group interviews.* Based on survey sub-scale scores, no less than three boys and three girls from each of the four quartiles will be invited to participate, which will create four focus groups, totaling 24 participants. Utilizing focus groups will help provide students with a comfortable atmosphere to respond (Krueger & Casey, 2000). The interviews will be semi-structured and employ the same questions as the attitude survey, but questions will be modified to be open-ended. The researcher will act as moderator and facilitate group discussion. As the interview progresses, new questions may form based on group responses or if clarification is needed (Patton, 2002). All interviews will be audio-recorded and should take approximately 45 minutes.

*Individual interviews.* These same students will also be invited to participate in a follow-up individual interview. The students will be selected to represent all quartiles of the initial survey responses. Interviews will be conducted by the main researcher and two additional researchers who will collaborate on the project. Individual interviews will
allow children to openly respond to the questions without possible influence from peers. The interviews will take place during regular school hours, with children being pulled from their homeroom classes. The interview will use the same questions as the focus-group prompts. During the interviews, the students may elaborate on the questions and follow-up questions will be asked as needed. All interviews will be audio recorded and should not take longer than 10-15 minutes. An outside researcher will review the tapes to assure that procedures were followed and that certain answers were not solicited from the students.

Field notes. Throughout the study, field notes will be collected on students' verbal and nonverbal language. Notes will also be recorded as researchers converse on emerging themes in the interviews. The field notes will be used to help formulate and categorize emerging themes.

Data Analysis

Survey data will be inspected and descriptive statistics will be analyzed including, frequencies, means, and standard deviations. Sub-scales for perceived (a) enjoyment and (b) usefulness of physical education will be calculated by averaging respective scale items. Respondents will be separated into quartiles based on sub-scale scores. Frequency and distribution statistics will be analyzed for sub-scale scores.

Data from the recorded interviews will be transcribed and then analyzed using the constant comparative method (Lincoln & Guba, 1985). This method involves examining raw data from the questionnaires and interview transcripts and categorizing the data into units of information. As data are categorized, they will be compared to each other and
closely analyzed for emerging themes. The computer software program NVIVO8 (QSR International, Cambridge, MA) will be used to aid in data management along with the categorizing and comparing process. While this program helps organize data, the researcher remains the chief analytic tool. Group discussions between collaborating researchers will also aid the process and help guide the extrapolation and refinement of themes.

*Establishing Trustworthiness*

*Triangulation.* There are four distinct forms of data triangulation (Denzin & Lincoln, 2000). This study will employ data triangulation, by asking similar questions of participants, first in the questionnaires and also in the focus groups and interviews. In addition, the study will use several different researchers, which is known as investigator triangulation. The use of triangulation will help establish the validity of the data (Denzin & Lincoln, 2000).

*Researcher bias statement.* The researcher received a bachelor’s degree in child development and has always been intrigued about learning more about children’s thinking processes and perceptions. While the researcher has no affiliation to the district or university in the Prusak et al. (in press) study, she has read the study a number of times in preparation of this follow-up research and is impressed by the model of success proposed in the study.

*Peer debriefer.* To assure researcher biases are avoided, one researcher will take on the role of peer debriefer, or devil’s advocate, and challenge the validity of emerging themes and ideas (Gerdes & Conn, 2001). This role will be filled by a university
pedagogy professor who has no other connection to this or previous studies associated with this district. The primary researcher and peer debriefer will meet regularly throughout the study until data analysis is complete.
References


Bauer, K. W., Yang, Y. W., & Austin, S. B. (2004). "How can we stay healthy when you're throwing all of this in front of us?" Findings from focus groups and interviews in middle schools on environmental influences on nutrition and physical activity. *Health Education and Behavior, 31*(1), 34-46.


Appendix A-1a

Consent Form
Introduction
This research study is being conducted by Tirza R. Davis, along with Keven A. Prusak, PhD and Todd Pennington, PhD at Brigham Young University to determine children’s views of their physical education (PE) program. Your child was selected to participate because they are currently taking PE in a Mesa Public School.

Procedures
Your child will be asked to complete a questionnaire during their homeroom class. The questionnaire consists of 20 questions and will take approximately 20 minutes. Questions will include questions such as, “The activities I learn in my PE class get me excited about PE.” and “The activities I learn in my PE class seem unimportant to me.”

Your child may also be asked to participate in a 30 minute, 6 person focus group and an additional 15 minute individual interview. Interviews will take place on school grounds and comments will be audio-recorded, transcribed, and analyzed for the purposes of this study. Interviews will consist of more in-depth questions similar to those of the questionnaire.

Risks/Discomforts
There are minimal risks for participation in this study. However, your child may feel emotional discomfort when answering questions about their attitude and perceptions of PE. If participating in a focus group interview, it is possible your child may feel embarrassed when talking in front of others. The moderator will be sensitive to those who may become uncomfortable.

Benefits
The possible benefits of participating in this project are: (a) increased understanding of Mesa Public Schools’ physical education program on children’s attitudes, (b) improvements in physical education curriculum and delivery.

Confidentiality
The results of this project may be published in a journal and or presented at a professional conference, however, your child’s name, identity, responses, and opinions will not be revealed. In order to keep your child’s name and identity a secret, only a code number will identify him/her in this project. Documents that link your child’s name with this code number will be kept separate and secured from the completed data forms, and destroyed as soon as they are no longer needed. In addition, names in reported research will be changed.

Compensation
There is no compensation for your participation in this study.
Participation
Participation in this research study is voluntary. Your child has the right to withdraw at anytime or refuse to participate entirely without jeopardy to his/her class status or grade.

Questions about the Research
If you have any questions regarding this study you may contact Tirza R. Davis, Department of Exercise Sciences, Brigham Young University, Provo, UT 84602 (801) 422-5717; tirzawatts@gmail.com.

Questions about your Rights as Research Participants
If you have questions regarding your child’s rights as a research participant, you may contact Christopher Dromey, Ph.D., IRB Chair, 801.422.6461, 133 TLRB, Brigham Young University, Provo, UT, 84602, christopher_dromey@byu.edu.

I have read, understood, and received a copy of the above consent and give my permission for my child to participate in this study.

Name of Child:_________________________________________

Signature:_____________________________________________ Date:____________________
(Parent/Guardian)

Child’s Assent
Tirza R. Davis, Keven A. Prusak, PhD and Todd Pennington, PhD at Brigham Young University are studying children’s views of their PE program.

You will be asked to complete a questionnaire during your regular class period. The questionnaire asks 20 questions about your attitude toward PE.

You may also be asked to participate in a focus group interview with 5 other students and an individual interview. Interviews will take place on school grounds and comments will be audio-recorded. Interviews will last 15 to 30 minutes and also ask questions about your attitude toward PE.

************************
I understand that I do not have to do any part of this study. If I change my mind, I can quit the study at any time. Only the researchers will see my answers.

Now I think I know about the study and what it means. I have decided:

☐ NO, I do not want to be in the study ☐ YES, I will be in the study

__________________________________     ________________
Your name (printing is OK)     Date
I certify that this study and the procedures have been explained to the above student in terms he/she could understand and that he/she freely assented to participate in this study.

__________________________________  ________________
Signature (Teacher)     Date/Time

PERCEPCION DE LA EDUCACIÓN FÍSICA ENTRE LOS NIÑOS ESCOLARES
Hoja de consentimiento para participar en el estudio

Introducción
Este estudio es hecho por Tirza R. Davis, bajo la dirección del Dr. Keven A. Prusak, así como del Dr. Todd Pennington de la Universidad de Brigham Young, para determinar la opinión de los niños sobre el programa de educación física (PE). Su hijo/a fue seleccionado para participar porque tienen un programa de educación física en una escuela pública de Mesa.

Procedimientos
Su hijo/a completará este cuestionario durante el periodo de clase. El cuestionario consiste de 20 preguntas y lleva unos 20 minutos para completarlo. Las preguntas son similares a: “las actividades que tengo en mi clase de PE me hacen sentir feliz de tomarlas” y “las actividades que aprendo en mi clase de PE no me parecen importantes”.

A su hijo/a puede que le pidan que participe en una sesión de unos 30 minutos con otras 6 personas y unos 15 minutos más en una entrevista individual. Estas entrevistas serán en la escuela y los comentarios serán grabados, transcritos y analizados según el propósito de este estudio. Habrá otras preguntas más a fondo, similares a las del cuestionario.

Riesgos/Incomodidad
Hay un riesgo mínimo en la participación en este estudio. Sin embargo, su hijo/a puede sentirse emocionalmente incómodo cuando contesta sobre su actitud y percepción sobre la educación física (PE). Al estar en un grupo puede ser que tenga vergüenza de hablar frente a otros. El moderador tendrá mucho cuidado para que los niños no se sientan incómodos.

Beneficios
Los beneficios posibles de participar en este proyecto son: (a) entender mejor el efecto de este programa de educación física en la actitud de los alumnos de las escuelas de Mesa, (b) la mejora del programa de educación física y su implementación.

Confidencialidad
Los resultados de este estudio pueden ser divulgados en una publicación profesional o presentados en una conferencia, pero el nombre del niño/a, su identidad, respuestas y opiniones no se revelarán. Para mantener la identidad y el nombre de su hijo/a privado,
sólo será identificado con un número que se mantendrá separado del nombre y de los cuestionarios. Esta información será destruida cuando no se necesite más. Además, los nombres de los participantes en el estudio se cambiarán.

Compensación
No hay compensación por participar en este estudio.

Participación
La participación en este estudio es completamente voluntaria. Su hijo/a puede retirarse en cualquier momento o se puede negar a participar sin temer ninguna represalia en su clase o en el año escolar.

Preguntas sobre el estudio
Si tiene alguna pregunta sobre este estudio, puede contactar a Tirza R. Davis, Departamento de Ciencias del Ejercicio, Brigham Young University, Provo, UT 84602. (801) 422 5717; tirzawatts@gmail.com

Preguntas sobre sus derechos como participante del estudio
Si tiene preguntas sobre los derechos de su hijo/a como participante de este estudio, puede contactar al Dr. Christopher Dromey, Ph.D, IRB Chair (801) 422 6461, 133 TLRB, Brigham Young University, Provo, UT 84602, christopher_dromey@byu.edu

He leído, entendido y he recibido una copia de esta autorización y doy permiso para que mi hijo/a participe en este estudio.

Nombre del niño/a:____________________________

Firma:______________________  Fecha:________________
(Padre/Tutor)
Consentimiento del escolar
Tirza R. Davis, Keven A. Prusak, Ph.D y Todd Pennington, PhD. de Brigham Young University están estudiando lo que los niños piensan del programa de educación física (PE).

Te pedimos que completes un cuestionario en clase. Tiene 20 preguntas sobre lo que piensas de la clase de (PE) educación física.

Puede ser que te pidan también que participes en una entrevista de grupo o con otros 5 alumnos en una entrevista individual. Estas entrevistas serán en la escuela y se grabarán. Las entrevistas pueden durar de unos 15 a 30 minutos y también pueden hacerte preguntas sobre PE.
Entiendo que no tengo obligación a hacer ninguna parte de este estudio. Si cambio de idea, puedo dejar el estudio en cualquier momento. Sólo los que hacen el estudio podrán ver mis respuestas.

Ahora sé lo que es este estudio y he decidido:

☐ NO, no quiero participar ☐ SÍ, quiero participar

Nombre ___________________________ Fecha ___________________________

Certifico que este estudio y los procedimientos se le han explicado al estudiante que firma, de manera que pudo entender y éste ha dado su consentimiento para participar en este estudio.

Firma (maestro) ___________________________ Fecha/hora ___________________________
Appendix A-1b

Questionnaire
"Thank you for your help in this research project. It is important that you listen carefully to each question and fill in the answer that best describes how you feel. There are no right or wrong answers, just answer honestly how you feel. Your answers will be kept confidential, or private. I'll reveal each question on the overhead projector and read it aloud. The answer choices will appear beneath each question, either Disagree, bubble in A, Neutral, bubble in B, or Agree, bubble in C. You fill in one answer at a time. Do not work ahead. Begin by writing your first and last name at the top of your scantron.”

“Next, at the top of the page where it says “Teacher” write the last three schools which you’ve attended since third grade. For example, if I went to Hawthorne for third and fourth grade and now I go to Holmes, then I would write Hawthorne and Holmes. If you’ve gone to Holmes the whole time, just write Holmes. If you’re not sure, then write ‘I don’t remember.’”

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fill in your age:</td>
<td>A = 10</td>
<td>B = 11</td>
<td>C = 12</td>
<td>D = 13</td>
</tr>
<tr>
<td>2. Fill in your gender:</td>
<td>A = boy</td>
<td>B = girl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fill in your ethnicity:</td>
<td>A = Caucasian</td>
<td>B = Hispanic</td>
<td>C = African American</td>
<td>D = Asian</td>
</tr>
<tr>
<td>4. Fill in your grade level:</td>
<td>A = 5th grade</td>
<td>B = 6th grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The activities I learn in my PE class make my PE class interesting for me.</td>
<td>A = Disagree</td>
<td>B = Neutral</td>
<td>C = Agree</td>
<td></td>
</tr>
<tr>
<td>6. The activities I learn in my PE class make learning unpleasant for me.</td>
<td>A = Disagree</td>
<td>B = Neutral</td>
<td>C = Agree</td>
<td></td>
</tr>
<tr>
<td>7. The activities I learn in my PE class get me excited about PE.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Children’s Perceptions of SSPE

A = Disagree       B = Neutral       C = Agree

8. My PE teacher makes my PE class seem unimportant to me.
A = Disagree       B = Neutral       C = Agree

9. I feel the activities I learn in PE make my PE class boring for me.
A = Disagree       B = Neutral       C = Agree

10. I feel the activities I learn in my PE class are useless to me.
A = Disagree       B = Neutral       C = Agree

11. The activities I learn in my PE class seem important to me.
A = Disagree       B = Neutral       C = Agree

12. My PE teacher makes my PE class seem important to me.
A = Disagree       B = Neutral       C = Agree

13. My PE teacher makes my PE class interesting for me.
A = Disagree       B = Neutral       C = Agree

14. The activities I learn in my PE class are useful to me.
A = Disagree       B = Neutral       C = Agree

15. I feel my PE teacher makes learning in my PE class fun for me.
A = Disagree       B = Neutral       C = Agree

16. I feel my PE teacher makes my PE class boring for me.
A = Disagree       B = Neutral       C = Agree

17. I feel the activities I learn in my PE class are valuable to me.
88 Children’s Perceptions of SSPE

A = Disagree        B = Neutral        C = Agree

18. The activities I learn in my PE class seem unimportant to me.
A = Disagree        B = Neutral        C = Agree

19. My PE teacher makes learning in my PE class unpleasant for me.
A = Disagree        B = Neutral        C = Agree

20. My PE teacher makes my PE class useful for me.
A = Disagree        B = Neutral        C = Agree

21. I feel my PE teacher makes learning in my PE class valuable for me.
A = Disagree        B = Neutral        C = Agree

22. I feel my PE teacher makes learning in my PE class useless for me.
A = Disagree        B = Neutral        C = Agree

23. My PE teacher gets me excited about PE.
A = Disagree        B = Neutral        C = Agree

24. I feel the activities I learn in my PE class make learning fun for me.
A = Disagree        B = Neutral        C = Agree